Automotive Environmental Scan 2015

ASA
AUTO SKILLS AUSTRALIA

The Environmental Scan
Context, purpose and audience

Rapid advances in technology, seismic shifts in global demography and rise of the conscientious consumer are just some of the factors that have left economists and policymakers recognising the limited relevance of historical trends and data as a reliable indicator of the future.

Attempts to predict industry's future workforce and skill development needs can be particularly fraught as industries continue to evolve, converge or re-locate and as new job roles emerge while others become obsolete.

Leading developed nations are establishing 'early warning systems' to quickly detect the onset of trends and building agile vocational training systems capable of responding to issues once identified. Environmental Scans have been conceived on this basis.

Specifically, the Environmental Scan identifies the macro and micro factors currently impacting on the skill needs of the workforce and its composition, it considers how well the national training system, its products and services, and industry itself are responding.

Grassroots evidence and real-time intelligence from across Australia are what sets the Environmental Scan apart from other reports in the national training system. It captures intelligence gathered from on-going visits and conversations with industry, key stakeholders, regulators and critically, the people doing the jobs across the sectors, and who experience firsthand the impact of change. It also draws on a range of topical sources such as the latest industry, enterprise and government research, and international developments. A detailed methodology can be found at Appendix B.

As a document limited in size, the Environmental Scan does not seek to capture every issue within every sector. It is a snapshot of a continually evolving story that is intended to alert and inform a wide audience and enhance their capacity to act.

The Environmental Scan's formal audience is the Department of Industry, the Australian Workforce and Productivity Agency and the National Skills Standards Council although its relevance extends far beyond and continues to be used extensively by state and territory governments, industry bodies, enterprises and many other stakeholders involved in skills and workforce development.

Environmental Scans are produced annually by Australia's Industry Skills Councils as part of their broader role in gathering industry intelligence and undertaking high-quality analysis of the skills needs and profile of the current and future workforce.

Australian Government
Department of Education and Training

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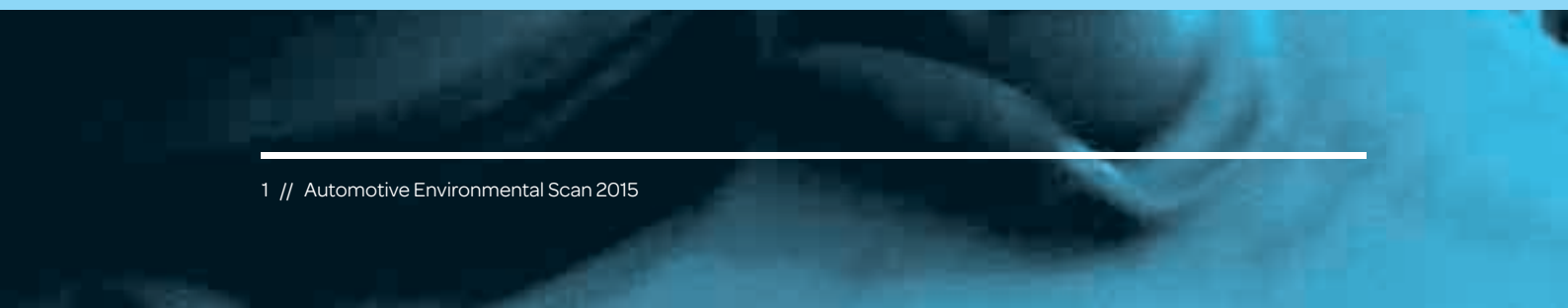


Executive Summary

The Australian motor vehicle market is one of the most competitive in the world. There are more than sixty passenger vehicle brands on sale within a market that purchases just over one million new vehicles annually.

Whilst Australian consumers have a greater level of product choice than most, the challenge for industry is keeping abreast of the technology being introduced into the market and providing suitably trained technicians to repair and service these products.

The impending closure of domestic car manufacturing in Australia presents an opportunity for all industry stakeholders and government to re-evaluate the future context, scope and identity of the automotive industry.

As manufacturing will no longer play a key role, the focus of all stakeholders needs to be on the new composition of the industry – the sales, service and repair of motor vehicles and components, which will represent more than 95% of all activity.

Critical issues such as technological change, skills and training challenges, business consolidation and the transitional impact caused by structural adjustment within manufacturing are the industry priorities that require policy attention.

As the industry continues its transition towards a new business landscape, it will still remain a significant economic entity that will employ around 340, 000 people after 2017. With the nation's on-road stock of vehicles approaching 18 million and the continual addition of almost half a million extra vehicles a year, this can only have positive effects on career prospects and future employment within the industry.

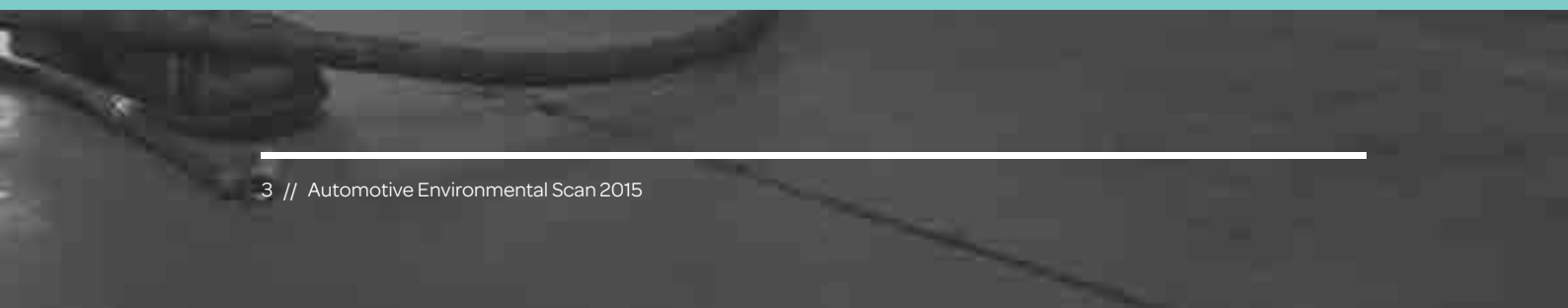
KEY MESSAGES ARISING FROM THE 2015 E-SCAN

- It is time for government and stakeholders to formulate a cohesive policy framework around the new identity of the automotive industry. This will require an understanding of the critical issues facing each sector as well as clearly defined policy outcomes that are measurable and can be implemented.

- The pace of structural adjustment and business consolidation is rapidly accelerating. This is most prominent within the Automotive Repair and Maintenance sector, where independent small business operators are exiting in increased numbers due to factors such as:
  - rising business operation and administrative costs
  - the adoption of longer vehicle warranties and fixed price servicing for virtually all vehicle brands and makes
  - technological change and the inherent difficulties for independent repairers in accessing vehicle service and repair information from original equipment manufacturers (OEM) and their affiliated dealerships
  - the requirement to invest in costly capital equipment and the continual upgrading of skills in order to diagnose, service and repair ever-changing and complex vehicle technologies
  - industry moves towards the national grading of shops and training standards within the Automotive Body Repair sector by peak industry bodies and insurance companies.
- New business models – such as joint ventures and duopolies – are emerging in the drive to obtain a competitive advantage within the Retail, Wholesale and Automotive Repair and Maintenance sectors. This will yield greater market power and possibly lead to further business churn.
- Rapid technological change within motor vehicles is placing greater demands on the skills base of the workforce. Training providers will require better access to contemporary vehicle technologies, as well as better-qualified teaching staff who can effectively train in these technologies and actively engage students in a classroom environment.

* The Australian Bureau of Statistics (ABS) has made recent changes to its methodology for the labour force survey collection. This has resulted in increased volatility of labour force estimates as well as revisions to data by ABS. These changes have impacted on employment estimates for automotive as well as other industries, making yearly comparisons less reliable. It is likely that on-going volatility of labour force estimates will be observed in the near future, with the implementation of further changes to ABS methodology as a result of the findings of an independent technical review.

- Auto Skills Australia labour force modelling of skills demand and supply indicates lower levels of shortages across the industry compared with last year. A national shortage of approximately 16,359 people is forecast as at October 2014. Vehicle mechanical and vehicle body trades account for the bulk of this with national shortages of 5,716 Light Vehicle Mechanical Technicians, 1,567 Heavy Vehicle Mechanical Technicians, 2,700 Body Repair Technicians and 1,900 Vehicle Refinishing Technicians.
- The apprenticeship system remains the industry's preferred model of skills formation. However, the huge expansion of training providers and competition for students has affected the ability of many RTOs to deliver services of the standard expected by the business and general community. Of particular note is the diminishing ability of RTOs to service regional areas and thin (low volume) training markets. Training options in critical skilled trades such as automotive electrical, marine, motorcycle, engine reconditioning and bicycle mechanical are rapidly disappearing within RTOs because of low student numbers and the costs associated with running such courses.



Section 1 Latest Industry Intelligence

A new vision for automotive

With the closure of domestic car manufacturing fast approaching, it is appropriate to re-evaluate what the automotive industry will represent to Australia beyond 2017. Perceptions and agreement about the future context, scope and identity of the automotive industry must be established now to arrive at a common understanding among stakeholders, the community and government.

This will help promote clarity, a future vision and cohesive industry policy. To this extent, recent business and political initiatives towards a Senate inquiry into the automotive industry are a positive step forward.

Beyond the Productivity Commission's forecast of the direct loss of 40,000 jobs through the closure of domestic car manufacturing, the automotive industry will still remain a significant economic entity employing around 340,000 people after 2017. The new 'face' of the industry will be the sales, service and repair of motor vehicles and components, which will represent more than 95% of activity. The industry will continue to have a manufacturing presence through the assembly and manufacture of heavy vehicles, agricultural, mining and lifting machinery, vehicle bodies and trailers and other related activities.

Critical issues such as technological change, skills and training challenges, business consolidation and the transitional impact caused by structural adjustment within manufacturing must now be viewed as industry priorities that require policy attention.

Australia's motor vehicle fleet continues to grow by a net 450,000 vehicles or 2.5%[1] every year, with no signs of slowing. At this rate, the stock of motor vehicles will pass 18 million nationally during 2015. Such strong growth can only have positive effects on career prospects and future employment.

INDUSTRY OVERVIEW

Current composition of the automotive industry

Auto Skills Australia (ASA) has always defined and measured the automotive industry in conjunction with industry and stakeholder participation. To this extent, there is a diverse variety of sectors and activities that in aggregate comprise the automotive industry. These are:

- Motor Vehicle and Motor Vehicle Parts Manufacturing
- Motor Vehicle and Motor Vehicle Parts Wholesaling
- Motor Vehicle, Parts and Tyre Retailing
- Automotive Repair and Maintenance
- Agricultural, Mining and Lifting Machinery
- Fuel Retailing
- Motor Vehicle Hiring
- Motorsport
- Outdoor Power Equipment
- Bicycles
- Marine.

A key problem that profoundly affects the compilation of data for the automotive industry is that several sectors – outdoor power equipment, motorsport, bicycles and marine – are not separately identified or measured in official statistics as provided by the Australian Bureau of Statistics (ABS). These limitations concern the ANZSIC and ANZSCO industry and occupational classifications, which continue to work poorly for the automotive industry. The rapid pace of technological change in motor vehicles and ever-changing job roles have further eroded the relevance of these classifications.

While past dialogue between ASA and the ABS has indicated that a major structural review of ANZSCO is scheduled for 2016-17, this is by no means a certainty. It is quite probable that automotive and many other industries will have to rely on these antiquated statistical classifications for the foreseeable future. This necessitates the use of complex and time-consuming methodologies to estimate values for different sectors.

Economic contribution

Table 1 presents an overall economic summary of the automotive industry as derived by ASA in accordance with identified industry scope and coverage.

For the year ended June 2014, aggregate employment for the industry was recorded at 383,806 persons. In gross domestic product (GDP), the automotive industry as a whole accounted for approximately $38.3 billion or 2.5% of Australia's annual GDP in current prices ($1.52 trillion[2]) in 2012-13.

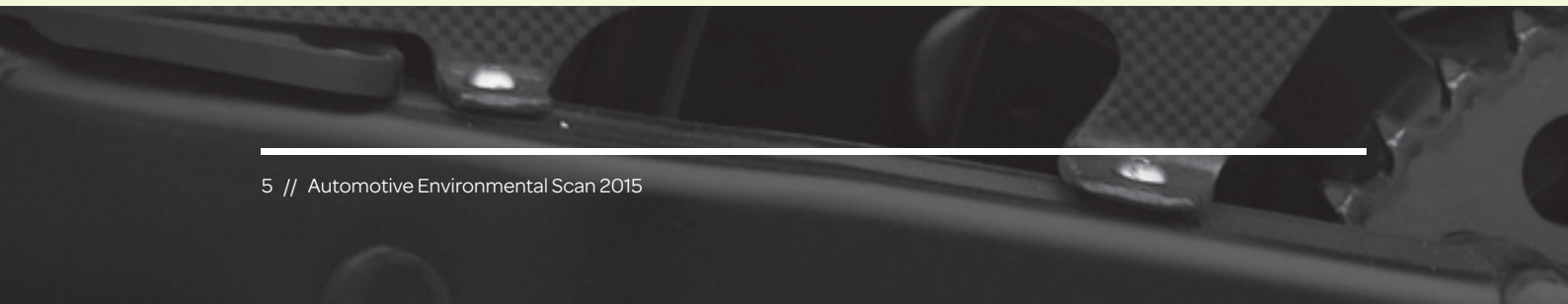


Table 1: Automotive industry economic summary.

	2013-14		2012-13	
ANZSIC CODE	INDUSTRY SECTOR	EMPLOYMENT (NO.)	ANNUAL TURNOVER ($M)	INDUSTRY VALUE ADDED ($M)
2311, 2312 2313, 2319	Motor Vehicle and Parts Manufacturing	48,175	20,068	4,782
2399, 2462, 2491, 2461	Other specialised machinery and equipment manufacturing	12,200	8,680	2,170
350	Motor Vehicle and Parts Wholesaling	24,900	53,872	5,889
391	Motor Vehicle Retailing	68,850	49,405	7,436
392	Motor Vehicle Parts and Tyre Retailing	23,775	20,451	2,139
400	Fuel Retailing	36,975	37,362	2,863
6611	Motor Vehicle Passenger Car Rental & Hiring	7,300	2,850	1,783
941	Automotive Repair and Maintenance	149,550	22,890	10,500
4241	Bicycle Retailing	4,792	2,600	554
4245	Marine Equipment Retailing	3,389	2,089	222
4231	Outdoor Power Equipment*	3,900*	1,000*	NA
TOTAL		**383,806**	**221,267**	**38,338**

Source: ABS data. *Note: Official ABS employment estimates for this sector are unavailable. Anecdotal industry estimates are provided.
NA: Estimates not available.

In regards to Table 1, it must be advised that the ABS has made a number of significant changes to its methodology for the labour force survey collection over the past 12 months or more. These changes have resulted in highly volatile employment estimates in 2014, along with revisions to time series data. Alterations include:

- Changes to the benchmarking of the Labour Force Survey (LFS)
- Changes to questions on "job search" and other changes to the LFS questionnaire
- Changes to the LFS supplementary survey program
- Expanding the use of on-line forms (e-forms)
- Lowering of response rates

These changes have impacted on employment estimates for automotive as well as other industries, making comparisons with prior years less reliable. In response to intense media and public pressure over the volatility of ABS estimates, an independent technical review into the LFS was conducted in late 2014. The review found 16 key recommendations in regards to the LFS, which the ABS has agreed to fully implement. Until the recommendations of the review are implemented, LFS estimates will continue to exhibit volatility and users of this data are therefore advised to exercise caution.

Exports and imports

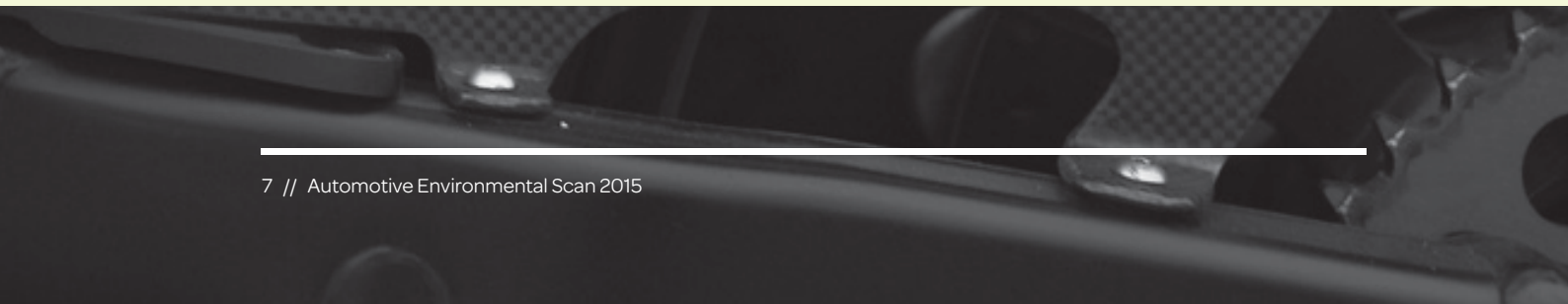
The total value of exports for the industry in 2013 was $3.81 billion, an increase of 2.4% over 2012. Motor vehicles accounted for 58.2% of total exports in 2013 and parts 41.8%.

The largest market for Australia's automotive exports is the Middle East, which accounts for 39%, followed by the North American Free Trade Association (16%), New Zealand (14%), the Association of South East Asian Nations (5%), the European Union 27 (5%), Republic of Korea (4%), China (4%), and others (13%).

Table 2: Total automotive trade, 2010 to 2013.

	2010 ($m)	2011 ($m)	2012 ($m)	2013 ($m)
Motor vehicle exports	2,091	1,673	2,147	2,219
Motor parts exports	1,464	1,577	1,572	1,591
Total automotive exports	**3,555**	**3,250**	**3,719**	**3,810**
Motor vehicle imports	22,796	21,133	26,401	25,590
Motor part imports	7,473	7,861	8,403	8,099
Total automotive imports	**30,268**	**28,994**	**34,805**	**33,689**

Source: Department of Foreign Affairs and Trade (DFAT), STARS Database 2013.



By contrast, the total value of Australia's automotive imports in 2013 was nearly $33.7 billion, almost nine times the value of automotive exports. Motor vehicles accounted for the bulk of total imports (76%) with parts at 24%.

Japan represents the largest source of automotive imports (28% by value in 2013), followed by the European Union (23%), the Association of South East Asian Nations (18%), the North American Free Trade Association (14%), Republic of Korea (8%), China (5%) and others (4%).

Industry and business structure

Table 3 shows as at June 2013, there were 64,772 registered businesses operating within the automotive industry nationally that were actively trading and submitting Business Activity Statements (BAS). This represents a net contraction of 2,772 businesses or 3.7% over June 2012 and is the largest industry contraction observed to date.

The structural composition of this net decrease shows that non-employing businesses (sole trader/partnership) represented the majority of the loss (-1,811) followed by small businesses with between 1 to 19 employees (-1,068). The medium-size business segment (20 to 199 employees) actually grew by 103 businesses over the period, as did the large business segment (200 or more employees) which grew by four businesses.

While virtually all sectors of the automotive industry recorded fewer businesses operating for the period, the decrease was particularly pronounced within the Automotive Body, Paint and Interior Repair sector and Other Automotive Repair and Maintenance sector, which contracted by 630 and 765 businesses respectively. These two sectors combined accounted for slightly more than half (50.3%) of the total industry net business losses for the period. The only sector that recorded a net increase in the number of business was the Bicycle Retailing sector, which grew by 14 businesses.

Table 3: Counts of Automotive Businesses by Sector and Employment Size Ranges – June 2013

	NON-EMPLOYING (NO.)	1-19 EMPLOYEES	20-199 EMPLOYEES	200+ EMPLOYEES	TOTAL	CHANGE FROM LAST YEAR
Motor Vehicle Manufacturing	248	180	48	5	481	-48
Motor Vehicle Body and Trailer Manufacturing	505	653	145	7	1,310	-39
Automotive Electrical Component Manufacturing	142	109	16	3	270	-13
Other Motor Vehicle Parts Manufacturing	379	439	102	13	933	-55
Agricultural, Mining and Lifting Machinery Manufacturing	844	1016	197	18	2075	-63
Car Wholesaling	675	430	41	11	1,157	-109

	NON-EMPLOYING (NO.)	1-19 EMPLOYEES	20-199 EMPLOYEES	200+ EMPLOYEES	TOTAL	CHANGE FROM LAST YEAR
Commercial Vehicle Wholesaling	122	119	30	6	277	-18
Trailer and Other Motor Vehicle Wholesaling	120	90	19	0	229	-14
Motor Vehicle and New Parts Wholesaling	1,036	1,396	127	5	2,564	-173
Motor Vehicle Dismantling and Used Parts Wholesaling	352	574	21	0	947	-74
Car Retailing	1,928	1,904	737	33	4,602	-170
Motor Cycle Retailing	338	515	25	0	878	-90
Trailer and Other Motor Vehicle Retailing	235	260	35	0	530	-13
Motor Vehicle Parts Retailing	729	1,184	46	3	1,962	-109
Tyre Retailing	540	1,492	68	0	2,100	-58
Fuel Retailing	1,103	2,568	217	3	3,891	-105
Marine Equipment Retailing	443	470	24	0	937	-39
Passenger Car Rental and Hiring	913	482	46	9	1,450	-74
Automotive Electrical Services	1,497	1,611	27	0	3,135	-117
Automotive Body, Paint and Interior Repair	4,882	5,838	218	6	10,944	-630
Other Automotive Repair and Maintenance	9,191	12,386	173	3	21,753	-765
Bicycle Retailing	20	900	137	0	1,057	+14
Outdoor Power Equipment*	60	1230	0	0	1,290	-10
Total Businesses	**26,302**	**35,846**	**2,499**	**125**	**64,772**	**-2,772**

Source: ABS Counts of Australian Businesses, including Entries and Exits, June 2013 (Cat. No. 8165.0).

KEY ISSUES AND TRENDS AFFECTING THE AUTOMOTIVE INDUSTRY

Business consolidation

The trend of business consolidation (as shown in Table 3) was reinforced in discussions held by ASA with industry during 2014. The pace of structural change is rapidly increasing and this is in line with forecasts made by ASA in previous years. While small businesses comprise more than 95% of the automotive industry, this proportion is estimated to fall to 84% by 2020, according to modelling conducted by ASA.

The process of structural adjustment will have implications for both industry stakeholders and consumers. In particular, stakeholder evidence shows the following effects are already being felt within the industry:

- The decline of independent /unincorporated businesses, particularly within the Automotive Repair and Maintenance sector
- The emergence of new business models
- The concentration of market power within specific sectors
- Constant technological change
- Challenges with job roles, skills development and training.

The decline of the independent operator

Although the imminent closure of passenger vehicle manufacturing in Australia is common knowledge, there is far less awareness of the ongoing closure of small businesses particularly within the Automotive Body Repair and Other Automotive Repair and Maintenance sectors.

Independent sole proprietor/partnership businesses within these sectors are finding it increasingly difficult to continue trading due to several factors, including:

- rising business operational and administrative costs
- the adoption of longer vehicle warranties and fixed price servicing for virtually all vehicle brands and makes
- technological change and the inherent difficulties for independent repairers in accessing vehicle service and repair information from original equipment manufacturers (OEM) and their affiliated dealerships
- the requirement to invest in costly capital equipment and the continual upgrading of skills in order to diagnose, service and repair ever-changing and complex vehicle technologies
- industry moves towards the national grading of shops and training standards within the Automotive Body Repair sector by peak industry bodies and insurance companies.

A critical development at the time of writing was the signing of a data-sharing agreement among key industry stakeholders to facilitate access for independent repairers to all information required for the diagnosis, repair, servicing, periodic monitoring and reinitialising of vehicles in line with the information manufacturers provide to their authorised dealers and repairers.[3]

Signatories to this agreement have also agreed to develop protocols relating to vehicle data access and ownership, which is particularly important given the progressive uptake of vehicle telematics technologies that enable the transmission of data relating to vehicle use, performance and diagnostics.

While this development may influence many small independent businesses to remain in the industry, overall trends point towards fewer independent repairers over time, which ultimately will lead to less choice for consumers. Although this may be the case, there are also counter arguments to the effect that many of these businesses are marginal, undercapitalised, under-resourced and often portray a negative stereotype of the industry through unappealing, unsafe and 'dirty' workshop environments.

Proponents argue that a modern, clean, safe and efficient corporatised workshop that is able to invest in capital equipment and skills training is the way forward for the industry, both in terms of image, career prospects and ability to attract future recruits, even if it ultimately means fewer 'players' within the market.

The emergence of new business models

Fierce competition within key sectors of the industry, such as Motor Vehicle and Parts Retailing, Wholesaling, and Automotive Repair and Maintenance is being manifested in the desire for greater market share or power among competing businesses.

The drive to obtain a competitive advantage is leading to the establishment of new business models or arrangements aimed at deriving greater economies of scale and hence price advantages in the supply of goods and services. Key examples of these include:

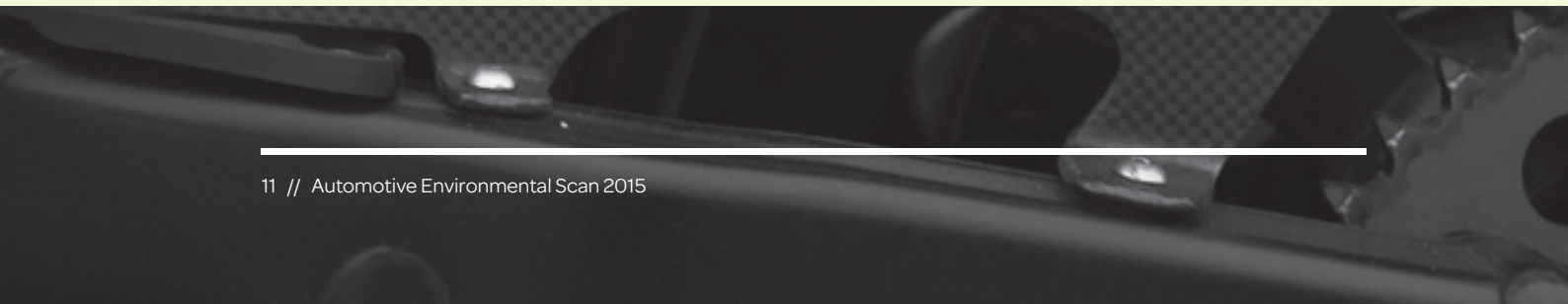
- the establishment of joint ventures between major entities in the automotive parts/aftermarket sector. Industry stakeholders claim this has the potential to influence the supply of automotive parts within the Heavy Vehicle and Light Vehicle Body and Mechanical Repair subsectors
- the emergence of duopoly arrangements within the Automotive Motor Vehicle Auction and Salvage Auction subsectors
- the direct sales of engines and parts by large parts suppliers to markets traditionally in the realm of the Engine Reconditioning subsector
- growth in the parallel import selling of OEM branded tractors and motorcycles by international-based auction houses and private business consortiums in Australia
- reports of unbalanced franchisee/franchisor arrangements in the Motor Vehicle Retail sector leading to pressure on dealerships for facility upgrades and other targets that can affect future viability.

Although such developments are essentially the product of a competitive marketplace, they may lead to further business churn and perhaps even the emergence of new sales models for businesses within these sectors in the future.

Technological change, skills and changing job roles

The increasing complexity of motor vehicles – as evidenced through the merging of electronic and mechanical technologies, intelligent transport systems, navigation, tracking and infotainment systems and the embedded network of computerised controls that manage these technologies – is placing greater demands on the skills base of the workforce.

The mechanic of yesteryear worked with less complex vehicle technology and could fix almost every problem across a broad range of motor vehicles; today's automotive technician is more likely to be a specialist. With the rate of technological change, it is difficult for even an experienced technician to keep up with the required technical knowledge without constant upskilling and training.



A key problem area within the current skills base that is often raised by industry is the absence of effective practical skills in vehicle diagnostics. This involves troubleshooting or fault-finding skills, along with the appropriate action to repair the problem. Even with the use of diagnostic scan tools in modern vehicle servicing that raise diagnostic trouble codes (DTCs) for particular vehicle faults, there is still a large element of misdiagnosis or failure to adequately pinpoint the real source of particular vehicle problems. This failure has led to a culture of parts replacement within the industry, which has helped foster a recent boom in the automotive parts supply sector. A key example that is often raised is the replacement of the oxygen sensor, which is one of the most frequently replaced items on a car, yet only around 15% are actually found to be faulty.[4]

Discussions with industry stakeholders have revealed deep concerns regarding such practices. It has been expressed that diagnostic scan tools are not a panacea for today's generation of vehicles and technicians. They simply indicate a problem area, but do not necessarily pinpoint what the problem actually may be. This requires a deeper understanding of the workings of vehicle systems and electrical theory and electronics, including the conditions that caused the fault code to be displayed. This often necessitates the effective use of specialised equipment such as oscilloscopes, multimeters and scan tools that capture live data and snapshots for analysis.

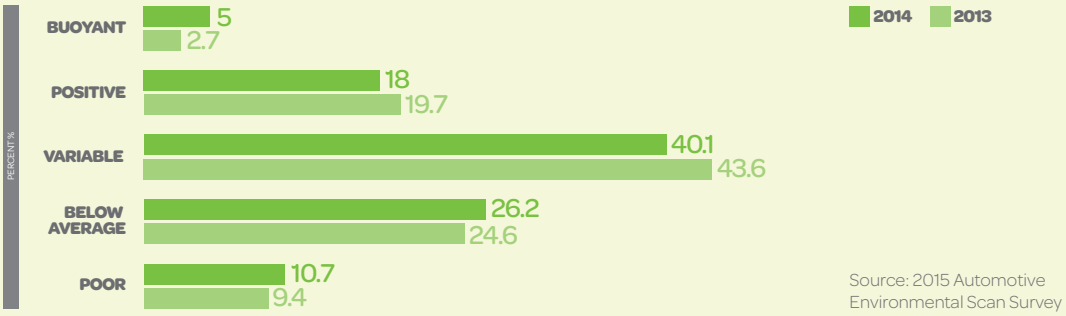
In the absence of such knowledge, many technicians are removing and replacing whole parts or vehicle components on the basis of a diagnostic scan tool trouble code reading, often at great cost to the consumer. The source of the problem, however, may have been a faulty wire or connector or some other simple solution. This has led to a marked increase in the level of consumer dissatisfaction concerning misdiagnosis of vehicle faults, as reported in the media. This is manifested through the inconvenience to the consumer of undertaking multiple visits to a dealership to fix a problem and often higher service costs for parts that are often not covered by the vehicle warranty.[5]

Traditionally there has been a divide been mechanical and electrical technicians, with a general reluctance by many to cross over into each other's space. The integration of mechanical and electronic technology in modern vehicles has changed this balance. Many vehicle service and repair workshops now expect a mechanical technician to have competency in all but the most complex of electrical and mechanical tasks, particularly in the case of independent workshops. Staff in these workshops are required to work on a variety of different vehicle brands, as distinct from the service department of an OEM-affiliated dealership that may specialise in only one or a limited number of brands.

To address these issues, in consultation with industry ASA has developed qualifications and units of competency that precisely reflect the job role within a contemporary automotive service and repair workplace. These units of competency contain very descriptive knowledge requirements that include underpinning knowledge and demonstrable performance evidence that can be observed in the training facility or the workplace. ASA has also ensured that units of competency contain the appropriate training resources and diagnostic tools for analysing contemporary vehicles, so that students can gain an effective understanding of the diagnostic process.

As vehicle technologies evolve further and with the increased adoption of hybrid and battery electric vehicles over time, it is likely that there will be a greater segmentation of skills within the automotive industry with narrower and deeper specialisations in vehicle brands or technologies being the norm.

Figure 1: Reported business conditions in the automotive industry.



Source: 2015 Automotive Environmental Scan Survey

Policy issues

It is clear that all sectors of the automotive industry are undergoing fundamental change. The fact that there will be no car manufacturing beyond 2017 now requires the focus to shift to other areas of the industry. The spotlight needs to be placed on areas that have usually been overlooked but will be central to the composition of the industry in the future.

Federal moves towards a Senate inquiry into the automotive industry are one step in the right direction towards a fresh approach where manufacturing no longer plays a key role.

What is particularly required is:

- a cohesive policy framework for the entire industry
- an understanding of the critical issues facing each sector
- a clear understanding of policy direction for industry stakeholders
- clearly defined policy outcomes that are measurable and can be implemented.

There has been a considerable investment in skills and expertise across all sectors of the automotive industry over a long period of time. This should be viewed and used as a strategic asset for future generations.

Current business environment

A national survey of 500 automotive businesses conducted by ASA during October 2014 (the 2015 Automotive Environmental Scan Survey) revealed that the majority of business respondents (40.1%) were experiencing variable business conditions across most automotive sectors. More than one-quarter of respondents (26.2%) reported below average growth, followed by 18% reporting positive business conditions and 10.7% experiencing poor conditions. A small proportion of respondents (5%) reported buoyant business conditions.

These responses are displayed in Figure 1 and represent a slight deterioration in business conditions over the previous year. A small level of variability was observed in responses across states and territories. Business intelligence conveyed to ASA through industry and stakeholder meetings supports these overall findings. In terms of business responses by sector, buoyant and positive responses were highest within the Bicycle sector and were lowest within the Passenger Vehicle Manufacturing, Vehicle and Parts Retail and Wholesale sectors.

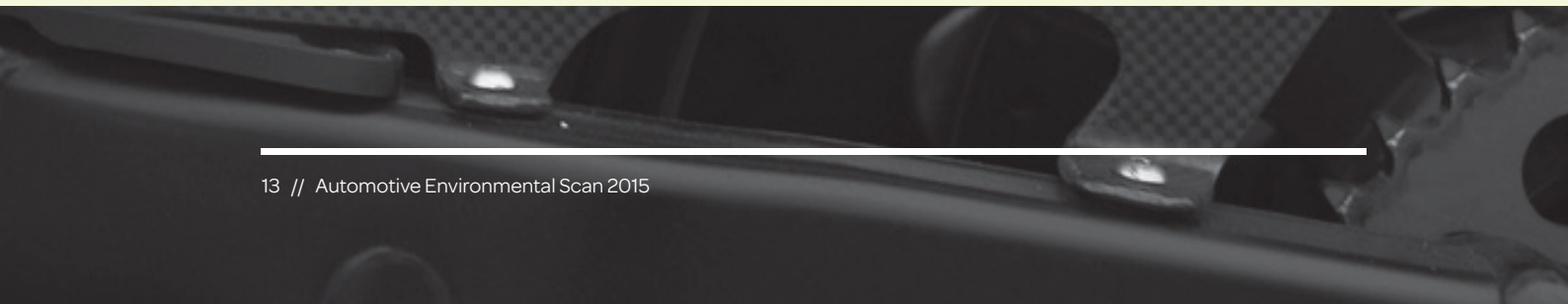
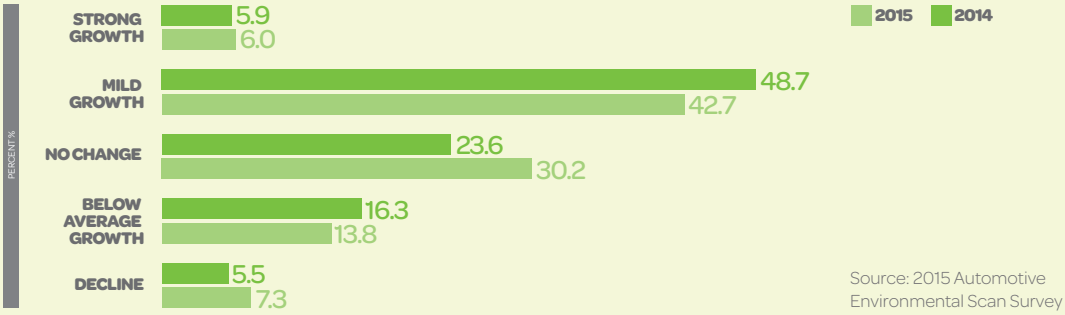


Figure 2: Business expectations for 2015, automotive industry.



Source: 2015 Automotive Environmental Scan Survey

Business expectations

In terms of business expectations for 2015, results from the E-Scan survey were broadly analogous with the previous year's results, with the majority of respondents (42.7%) cautiously expecting mild growth. Expectations for strong growth were highest among the Outdoor Power Equipment and Bicycle sectors, whereas declining business expectations were most prevalent within Motor Vehicle and Parts Manufacturing sectors and the Heavy Vehicle sector.

Key business issues

Figure 3 shows the survey results for key business issues affecting the automotive industry. In order of importance these are:

- maintaining profitability
- economic conditions
- government policy/regulation
- labour costs
- technological change
- business survival over the next one to five years.

These particular issues have consistently been identified by automotive businesses over the past four years of the survey. Consultations with business enterprises and industry stakeholders nationally also supported these findings. A new observation, however, is that business survival over the next one to five years is now listed as a significant issue for many respondents.

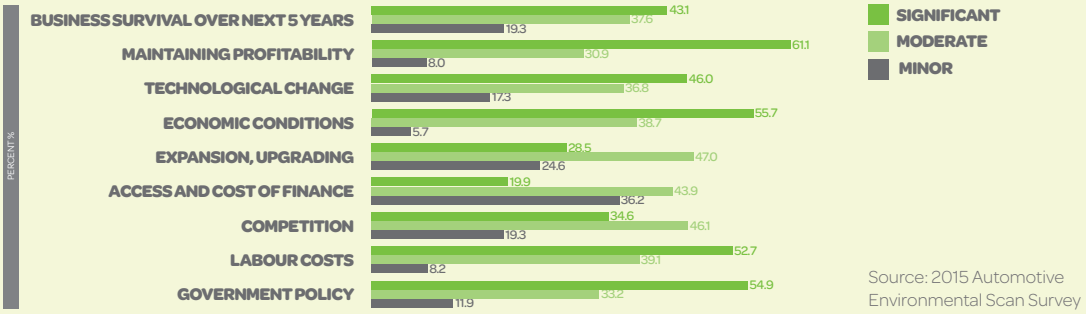
Key factors underpinning these responses include the regulatory impost on businesses by government, the closure of passenger vehicle manufacturing operations, the lack of access to technical repair information for many independent repairers, drought conditions affecting sales of agricultural machinery in many rural and regional areas, and heightened concerns over the possibility of changes to new or used car import regulations.

Key labour issues

Key labour issues as identified by respondents to the E-Scan survey include:

- attracting skilled workers
- achieving productivity improvements with current staff and skills base
- adoption of higher skill levels across the workforce.

Figure 3: Key business issues.



Source: 2015 Automotive Environmental Scan Survey

These issues have also been consistently reported over the past four years of the survey. Consultations with stakeholders confirmed that the industry continues to struggle to compete with other industries such as building and construction and mining and resources for skilled labour. As a consequence, the use of imported labour, such as 457 visa category labour, has gained a foothold among many businesses.

Other factors affecting the industry's ability to attract new entrants include negative community stereotypes about the image, pay and working conditions and the fact that more students are going on to university studies rather than considering a trade career. The irony is that with rapid technological advances in motor vehicles, the automotive industry requires a higher calibre of skilled worker than at any time in the past, yet the most suitable students with maths, science, IT and English skills are lured to a university education. Unfortunately, this leaves a cohort of under-achieving students from which employers have to choose.

Apprentice hiring intentions

Results from the E-Scan survey indicated that the majority of business respondents (57%) did not employ any apprentices, which was a slight increase on last year (53%). Furthermore, only 25% of all respondents reported any intention of hiring apprentices over the next 12 months, with the majority of these (60%) indicating they intended to hire only one apprentice.

Reduced hiring intentions were also confirmed during consultations with industry. For the first time, many within the Heavy Vehicle sector, which has been a strong recruiter of apprentices, indicated that they would not be hiring any apprentices during 2015 as a result of tighter-than-expected market conditions. The majority of respondents (56%) also reported that government incentives were not a critical factor in their decision to employ an apprentice.

Training and workforce development

The survey results clearly showed that the economic situation is affecting apprentice recruitment. The upskilling of existing employees was more of a training priority for most businesses, particularly product or proprietary training where 84% of respondents reported using it in the workplace over and above the national training qualifications. Most respondents (53%), however, also indicated that they did not have any formal plans in place to develop their workforce in the next 12 months, which is in contrast to last year where the majority (55.8%) indicated they had plans to develop their workforce.

Skills shortages

Table 4 shows the results of modelling undertaken by ASA of key skill shortages within the Australian automotive industry. Results from the E-Scan survey were combined with ABS labour force data to derive numerical estimates of skill shortages as reported by business respondents during October 2014. Overall, 40.6% of the 500 respondents reported experiencing skills shortage. This represents almost a 8% reduction over reported shortages from last year and is the lowest proportion of skill shortages recorded over the past four years of the industry survey.

Intelligence provided by stakeholders indicates that there has been some flow of labour back towards the industry as a result of the end of the mining and resources boom. Along with ongoing business rationalisation, consolidation and the recruitment of imported labour by many businesses, this may account for the declining proportion of reported skill shortages.

The occupations reported in Table 4 are not a complete list of all occupations reported to be in shortage, but represent the most numerically significant results from the modelling undertaken. Total skilled labour shortages are estimated at approximately 16,359 nationally, which represents a decrease in the demand for skilled labour of 5,441 positions compared to last year.

The Automotive Repair and Maintenance sector contained the highest proportion of skill shortages, within which Light Vehicle Mechanical Technicians and Body Repair Technicians represent the most significant skill shortages (5,716 and 2,700 persons respectively). Other skilled occupations recording notable shortages include Vehicle Refinishng Technician, Heavy Vehicle Mechanical Technician, Automotive Electrical Technician, Spare Parts Interpreter, Motor Vehicle and Parts Salesperson and Bicycle Mechanical Technician.

Although 40.6% of all survey respondents reported that they were affected by shortages of skilled labour, when asked about their expectations over the next 12 months 55% reported that they expected to be affected by skill shortages. Expectations of mild growth in the economy and competition for skilled labour with other industries were cited as key factors in this response.

Table 4: Key national skill shortages by sector and occupation, October 2014

SECTOR	REPORTED OCCUPATIONS IN SHORTAGE	NATIONAL SHORTAGE ESTIMATE (NUMBER)
Motor Vehicle and Parts Wholesaling	Spare Parts Interpreter Salespersons	552 325
Motor Vehicle Retailing	Vehicle Salesperson	618
Motor Vehicle Parts and Tyre Retailing	Spare Parts Salesperson Spare Parts Interpreter Tyre Fitter	412 374 190

Table 4: Key national skill shortages by sector and occupation, October 2014 (Continued)

SECTOR	REPORTED OCCUPATIONS IN SHORTAGE	NATIONAL SHORTAGE ESTIMATE (NIUMBER)
Automotive Repair and Maintenance	Light Vehicle Mechanical Technician Heavy Vehicle Mechanical Technician Mobile Plant Technician Service Advisor Body Repair Technician Vehicle Refinishing Technician Automotive Electricial Technician Motorcycle Mechanical Technician	5,716 1,567 216 313 2,700 1,900 623 150
Bicycle Retailing	Bicycle Mechanical Technician	553
Marine Equipment Retailing	Marine Mechanical Technician	150
Outdoor Power* Equipment	Outdoor Power Equipment Technician Salesperson	NA NA

Source: 2015 Automotive Environmental Scan Survey; ABS Labour Force data. NA: No skill shortages were recorded within this sector.
*Estimates are not available for this sector due to lack of ABS data.

Consistently from year to year, the top three reasons given by respondents for current and future skilled labour shortages include:

- the attraction of existing labour towards other industries (e.g. the mining, resources and construction industries)
- not enough people entering automotive trades
- the poor quality of available candidates.

Most respondents (75%) did not see low wages as a major issue contributing to skills shortages and this has been a consistent observation across surveys.

Most businesses reported increased labour costs, loss of profit and an inability to expand and reach their goals as direct consequences of persistent skill shortages over recent times.

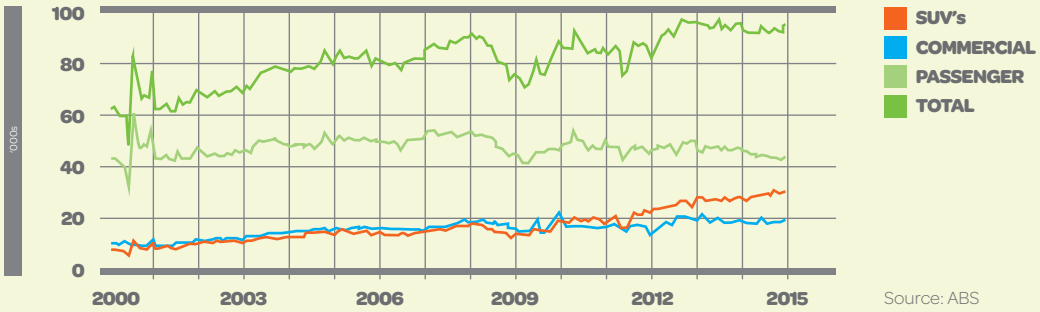
OTHER TRENDS

Motor vehicle retailing

As outlined in Table 1, the Motor Vehicle Retailing sector recorded strong employment growth over 2013-14. After a couple of poor results in October and November 2014, trend sales of new motor vehicles grew strongly (3%) in December 2014 to be approximately 1.1 million for the year, which is around 1% lower than 2013. It is likely that discounting from car dealers and consumer concerns that car prices could rise as the Australian dollar falls may have influenced the late surge in sales.

Passenger vehicle sales rose 2.8% in December but declined by 7.1% over the year, while sales of commercial vehicles grew strongly in December (6.5%) to record a modest increase over the year. The growth in commercial vehicle sales was spread across the states, with Queensland and Western Australia recording the highest growth (10%) followed by growth of between 5% and 7% in the other mainland states.[6]

Figure 4: Australian motor vehicle sales, 2000-14.



Source: ABS

Overall vehicle sales continue to show a trend increase in Victoria and New South Wales, but are well down in the mining states compared to peaks achieved earlier as shown in Figure 5. Trend sales of motor vehicles in Western Australia have fallen by approximately 20% over the past two years.

Bicycles

The Bicycle sector recorded a modest increase in employment in 2013-14, but the business environment remained challenging with bicycle imports down by almost 10% over the year. The parts and accessories sector is extremely susceptible to offshore purchases, which are easily transportable and cost less because they do not carry the GST or import duties imposed on Australian importers and retailers.

Although the Bicycle sector has experienced a significant turnover of shops, averaging approximately 5%, retail business numbers remain relatively stable as new stores keep opening. It is also reported that bicycle wholesalers are taking a more active role in the management of retail stores.

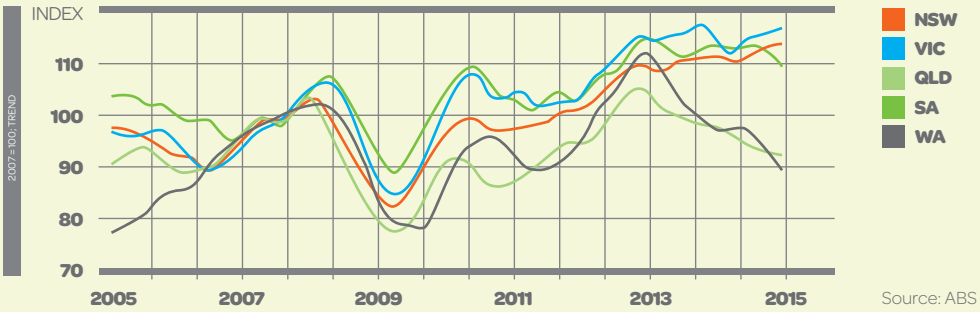
Of key concern to the sector is that bicycle mechanical technicians remain in critical shortage and that the growth in the number of people cycling has not been reflected in growth within the sector. Furthermore, it is claimed that government decisions affecting the retail and training environment have had an adverse impact on the Bicycle sector, with industry concerns around the quality of support for road-going vehicles being reduced due to these decisions.[7]

Marine

The Marine sector covers a range of skills and occupations, from boat building to marine mechanical technicians, designers, salespeople, training specialists and tourism operators. Commonly across the sector there is a shortage of people entering to take up a career. Although the sector had modest growth in sales revenue (1.5%), employment contracted by 5% and the future development of the workforce is a growing concern.

Recent and ongoing changes to VET coupled with the challenges of increasing costs of living have led to a reduction in the number of apprentices. The Boating Industries Alliance Australia (BIAA) State of Industry Survey, conducted in December 2014, indicated a reduction in apprentice training positions of almost 15%. Approximately 28% of companies supported apprentices, with the vast majority of these (85%) employing one or two apprentices, with less than 3% employing more than 10 apprentices.

Figure 5: Australian motor vehicle sales by state, 2005-14.



Source: ABS

It is claimed that past decisions to reduce on-the-job training within some sectors have contributed towards a shortage of skilled people and a drop in the number of training providers supporting the sector as a whole. The complexity of the VET environment is also a concern, particularly for the trade associations tasked with supporting the sector. Efforts to bolster capabilities to engage with skills councils, training providers and policy makers will be prioritised in 2015.

The key focus over the next three to five years is the marketing of the Marine sector as a viable and worthwhile option for those seeking careers and the rewards that come with success. This will demand a well-educated and well-trained workforce.[8]

The vocational education and training (VET) environment

Auto Skills Australia is responsible for the development and maintenance of two Training Packages that contain the vocational qualification requirements for the automotive industry. These are Automotive Manufacturing (AUM) and Automotive Retail, Service and Repair (AUR). There are 57 qualifications embedded within the latest version of these Training Packages and there are 242 registered training organisations delivering these qualifications.

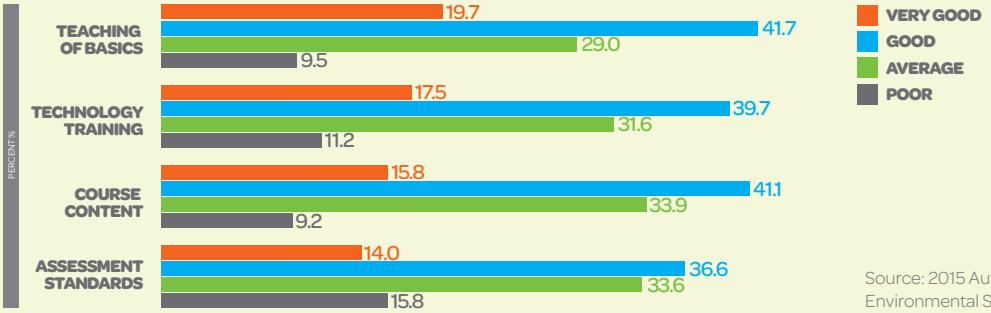
Industry satisfaction with training

Industry perceptions and use of vocational education and training are key indicators for the overall performance and quality of the VET system. Stakeholder intelligence compiled from the 2015 E-Scan survey indicated a good level of satisfaction across a range of key measures (see Figure 6).

The results shown in Figure 6 are broadly in line with last year's industry survey results, with one notable observation being a 4.5% decline in the proportion of respondents that considered the teaching of basics by training providers as being 'very good'. Assessment standards still remain the least favoured aspect of the training system.

While these overall results remain positive, the use of the training system among industry remains divided. Estimates compiled by ASA indicate that on average around 47% of automotive businesses actually use the national training system. The high concentration of sole proprietor businesses within the industry is a major contributing factor, given that many of these operators have no time or resources to allocate towards upskilling or training. With the increasing attrition of such operators as described earlier, it is to be expected that the proportion of automotive businesses engaging with the VET system will increase over time.

Figure 6: Automotive industry satisfaction with training providers.



Source: 2015 Automotive Environmental Scan Survey

Business forums conducted by ASA nationally also revealed other insights as to why some employers choose to remain disengaged from the VET system. These include:

- dissatisfaction by some employers with RTOs lack of access to technology
- a disconnect between training at RTOs and what is required in the workplace
- the disappearance and lack of access to many courses, especially in regional areas
- dissatisfaction with the early completion of many apprenticeships.

In addition to the use of national training qualifications, 40% of respondents also reported that they regularly used proprietary or product training within the workplace. This adds to the notion that there is distinct population of businesses that have an active training focus or mentality. Evidence shows that it is these businesses that invest in training that are best equipped to manage the transitions affecting the industry and emerge stronger as a result.

Graduates' satisfaction with training

Results from the 2014 Survey of Student Outcomes undertaken by the National Centre for Vocational Education Research (NCVER) showed that of all VET graduates, automotive graduates had among the highest levels of satisfaction with the quality of their training (91.7% satisfaction). Automotive graduates were also among the highest employed after completion of training, with 86.4% being employed after completing training in 2014, which was above the average for all VET graduates (77.6%).

Although these results are quite positive, it is estimated that up to 46% of automotive graduates are in a different occupation group six months after completing their training. This implies that there is significant job churn among graduates. Although this may not be ideal for some employers, it reflects the portability and flexibility of the AUR and AUM qualifications, which are valued across other job roles and industries.

VET policy issues and recommendations

The Australian apprenticeship system in partnership with RTOs and industry has been the primary model of skills formation and delivery in the automotive industry over the past 100 years or more and continues to remain the preferred model of skills development.

Automotive apprentices and trainees are also used across other industries such as mining, building and construction and transport and logistics. However, the ability of RTOs to deliver effective skills training in key areas such as heavy vehicles and mobile plant is contingent on being able to access sufficient funding and resources to invest in specialised equipment. Without such appropriate financial support, the quality of future skills delivery in these and other specialised areas could be at risk.

Another area of concern is in the provision of pathways between the VET sector and universities. Having appropriate course articulation between RTOs and universities is a desirable objective in helping raise educational aspirations and outcomes for many students. Additionally, this could also lead to enhanced career opportunities within the workforce.

In practice, however, existing articulation arrangements between the VET and higher education sectors are quite weak. There is little in the form of unified pathways and evidence of such applications remains inconsistent. Furthermore, there is a lack of information and transparency surrounding these matters and this limits student transitions between VET and university. Regrettably, these issues are even observed within 'dual sector' institutes. A key factor in this regard is the separate funding and regulatory arrangements that exist between the VET sector and higher education.

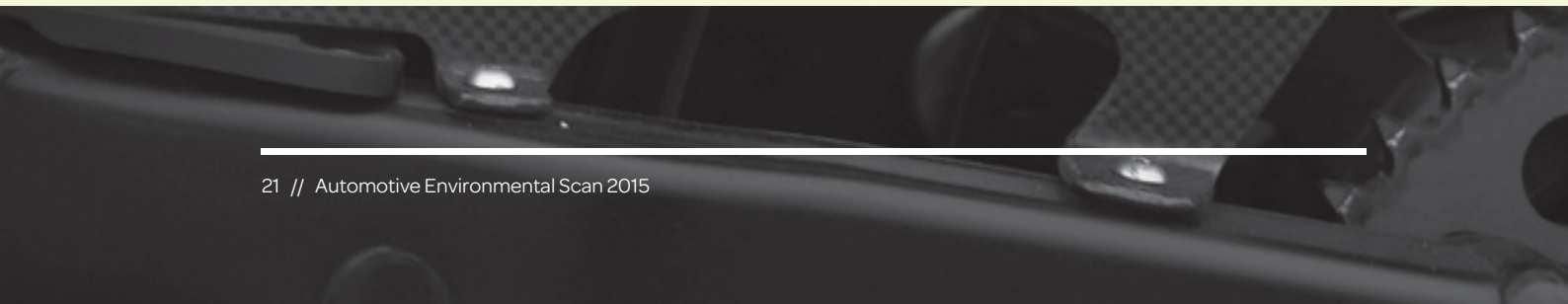
In recent years, the operation of a competitive training market has also seen the number of registered training organisations (RTOs) increase from approximately 3,000 in 2011 to around 5,000 in 2013-14.[9] This huge increase has been predominantly driven by the growth of private RTOs. Essentially, the situation now is that there are too many RTOs delivering training in what is a very crowded market.

Within this saturated training environment, the competition for students has affected the ability of many RTOs to deliver courses and provide services as expected by the business and general community. Of particular note is the diminishing ability of RTOs to service regional areas as well as thin (low volume) training markets. The provision of training in critical skilled trades such as automotive electrical, marine, motorcycle, engine reconditioning and bicycle mechanical are rapidly disappearing within RTOs due to low student numbers and the costs associated with running such courses.

In many regional areas, an RTO is the only post-school education facility available to the local community, necessitating the provision of a wide range of courses covering the needs of both regional employers and the wider community.

Another issue that has emerged within this crowded RTO environment is what has been referred to as 'cherry picking'. This relates to the alleged practice of many RTOs whereby they pick out and deliver the cheapest and least resource intensive units within a VET qualification and offer these to students at a cheaper rate. This practice often makes the delivery of full qualifications by the larger RTOs unviable.

Recent studies conducted by NCVER also indicate that parents may hold the key to young people's aspirations and this can have a direct impact on students' educational and job outcomes.[10] Developing policies and interventions that successfully leverage the influence of parents may yield a substantial pay-off with respect to changing or raising the educational and occupational aspirations of young people. This may be particularly important in the context of dealing with persistent skill shortages.



Section 2 Identified Workforce Development Needs

NEW SOUTH WALES AND ACT

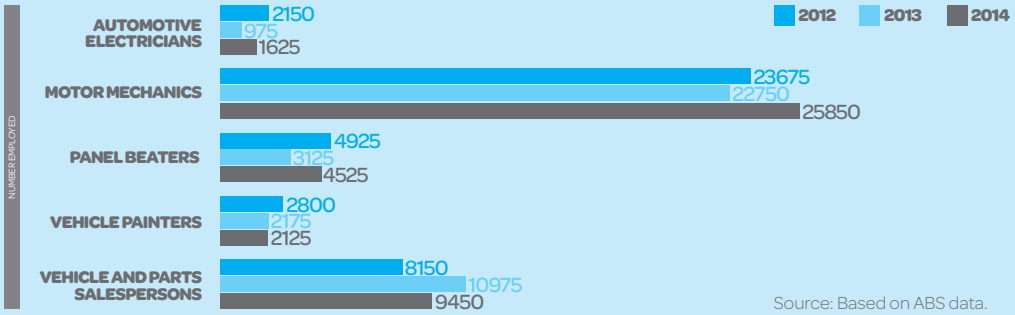
According to ABS data, New South Wales (NSW) recorded a total workforce of 92,980 people employed within the automotive industry in 2013-14. The Australian Capital Territory (ACT) recorded employment of 3,145 people within the industry over the same period (Tables 6 and 7). Annual aggregate industry employment growth was estimated at 1.3% for NSW and 12.9% for ACT in comparison with 2012-13 estimates supplied by ABS.

Table 5: Summary snapshot, automotive industry, New South Wales

STATE SUMMARY STAPSHOT	
Employment	92,980 people
Motor vehicle fleet, January 2014	5,102,352 vehicles
Average age of motor vehicle fleet	9.6 years
Number of automotive businesses	18,402
Employer-sponsored 457 visa Motor Mechanics as at September 2014 (NSW)	310 people
Employer-sponsored 457 visa Motor Mechanics as at September 2014 (ACT)	20 people

Source: Based on ABS, NCVER and Department of Immigration and Border Protection data.

Figure 7: Number employed in key occupations, NSW, year ending February



Source: Based on ABS data.

At the business level, the latest available Australian Bureau of Statistics (ABS) data (2012-13) shows a net decrease of 779 automotive businesses within NSW compared with the previous year. Approximately half of this decrease occurred within the Automotive Repair and Maintenance sector, comprising almost wholly sole traders and small businesses within Vehicle Servicing, and the Body, Paint and Interior Repair subsectors.

The ACT by contrast also had far fewer business closures, with only 24 fewer businesses recorded as at June 2013 compared with June 2012.

A key trend shown in Figure 8 is that employment of Motor Mechanics in the ACT for the year ending February 2014 is less than half the number employed over the same period in 2012. Employment of Panel Beaters, however, has quadrupled in the ACT over the same period.

For automotive apprentices, NSW and ACT had similar trend patterns of declining numbers of apprentices and trainees in-training as well as annual commencements (Figures 9 and 10). Automotive apprentices and trainees are at their lowest levels of any period over the past four years.

Industry forums and stakeholder meetings conducted by ASA in NSW and ACT indicate some key issues of concern around the state of the industry and specific workforce development requirements.

In NSW, industry stakeholders reported declining levels of business activity for small and independent automotive repair workshops, with many business operators saying they were in survival mode. This was attributed to many factors, including:

- the greater reliability of modern motor vehicles
- the proliferation of extended vehicle service intervals
- the adoption of capped price servicing for virtually all vehicle brands and makes along with lengthy new vehicle warranties
- customers delaying or neglecting scheduled vehicle servicing for vehicles that are out of warranty, often to the point of experiencing major mechanical failures or serious safety issues
- difficulties for independent repairers in obtaining access to vehicle service and repair information from original equipment manufacturers (OEMs) and their dealerships. This is being exacerbated by moves among some OEMs to eliminate vehicle service log books
- challenges for existing business models through the rise of new business conglomerates within automotive parts and other key sectors
- the vertical integration of vehicle body repair work within insurance company operations.

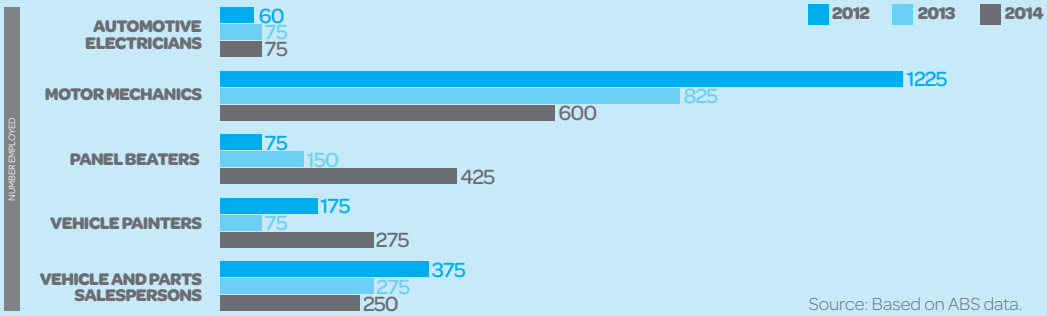
Although the Automotive Repair and Maintenance sector is facing significant challenges, other sectors are faring much better. The Vehicle Body Building subsector reported positive business conditions as a result of ongoing growth in vehicle freight and the upgrading of rail infrastructure across NSW.

This has resulted in significant levels of capital investment within the subsector to satisfy volume and quality requirements for vehicle bodies and trailers, in accordance with the standards imposed by the national heavy vehicle regulator. Positive business conditions were also reported within the Recreational Vehicle subsector, with a growing demand for caravans and motor homes among retirees that has in some cases caused bottlenecks in vehicle supply.

In the ACT, a rather different business environment prevails. Being an economy heavily based on the public service, the ACT is reported to be experiencing heightened levels of consumer and business uncertainty as a result of budgetary changes that are affecting public servants. This has translated into:

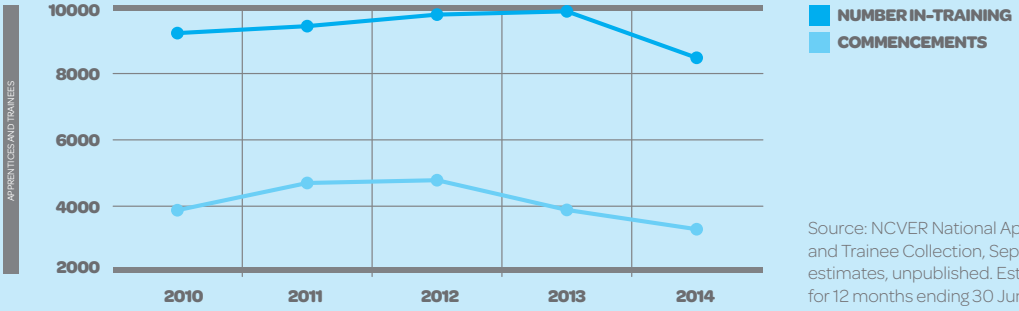
- reductions in consumer expenditure on vehicle upkeep and purchases
- reports of up to a 50% decrease in turnover in car servicing at some dealerships
- vastly reduced levels of apprentice hiring by businesses as a result of significant decreases in the volume of work.

Figure 8: Number employed in key occupations, ACT, year ending February



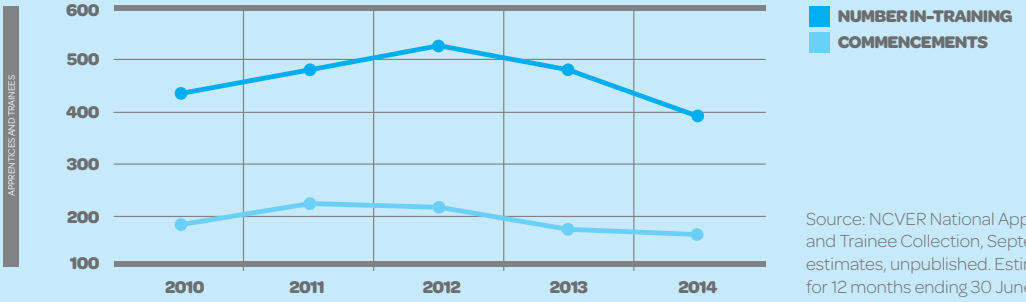
Source: Based on ABS data.

Figure 9: Apprentices and trainees, AUR Training Package, NSW



Source: NCVER National Apprentice and Trainee Collection, September 2014 estimates, unpublished. Estimates are for 12 months ending 30 June.

Figure 10: Apprentices and trainees, AUR Training Package, ACT



Source: NCVER National Apprentice and Trainee Collection, September 2014 estimates, unpublished. Estimates are for 12 months ending 30 June.

Table 6: Sector profile, automotive industry, NSW

SECTOR	EMPLOYMENT YEAR ENDING JUNE 2014	NUMBER OF BUSINESSES AS AT JUNE 2013	CHANGE IN NUMBER OF BUSINESSES FROM PREVIOUS YEAR
Motor Vehicle and Parts Manufacturing	6,925	723	-30
Motor Vehicle and Parts Wholesaling	5,600	1,604	-141
Motor Vehicle Retailing	18,275	1,762	-118
Motor Vehicle Parts and Tyre Retailing	4,675	1,218	-27
Fuel Retailing	8,475	1,421	-49
Automotive Repair and Maintenance	43,325	10,736	-396
Passenger Car Rental and Hiring	2,300	421	-14
Bicycle Retailing	1,295	265	+10
Marine Equipment Retailing	850	252	-14
Outdoor Power Equipment Retailing*	1,260*	NA	NA
TOTAL	**92,980**	**18,402**	**-779**

Source: ABS data. *Note: Official estimates for this sector are unavailable. Anecdotal national industry employment estimates are provided and apportioned by state according to ABS state population distributions. NA: Estimates not available.

Table 7: Sector profile, automotive industry, ACT

SECTOR	EMPLOYMENT YEAR ENDING JUNE 2014	NUMBER OF BUSINESSES AS AT JUNE 2013	CHANGE IN NUMBER OF BUSINESSES FROM PREVIOUS YEAR
Motor Vehicle and Parts Manufacturing	50	9	-6
Motor Vehicle and Parts Wholesaling	75	35	0
Motor Vehicle Retailing	475	61	-1
Motor Vehicle Parts and Tyre Retailing	325	38	-1
Fuel Retailing	200	21	-4
Automotive Repair and Maintenance	1,700	334	-13
Passenger Car Rental and Hiring	145	12	-3
Bicycle Retailing	109	22	+1
Marine Equipment Retailing	9	6	+3
Outdoor Power Equipment Retailing*	66*	NA	NA
TOTAL	**3,145**	**538**	**-24**

Source: ABS data. *Note: Official estimates for this sector are unavailable. Anecdotal national industry employment estimates are provided and apportioned by state according to ABS state population distributions. NA: Estimates not available.

KEY WORKFORCE DEVELOPMENT REQUIREMENTS

Consultations with industry stakeholders across NSW and ACT revealed a common set of workforce development priorities resulting from the current business environment and the national VET system. These included:

- strengthening of diagnostics skills among automotive technicians and apprentices, including the ability to interpret and work with live data
- the need for workers to keep abreast of technological change by constantly upgrading their technical knowledge and skills through attending OEM product training courses and other means
- the need for automotive technicians to be appropriately cross trained in both mechanical and electronics skills
- the need to have appropriate ratios of apprentices to skilled tradespeople on the workshop floor to ensure effective training and supervision of apprentices
- exploration of the concept of developing separate automotive qualifications for entry into OEM-affiliated dealerships versus independent automotive service and repair workshops.

Current skill shortages

Results from the 2015 Automotive Environmental Scan Survey were modelled in conjunction with ABS labour force data by ASA to derive estimates of key skill shortages for NSW and ACT combined (see Table 8).

The skill shortages identified in Table 8 are not a complete list of all occupations reported as being in shortage, but rather the most critical and numerically significant shortages as identified by NSW and ACT respondents in the E-Scan survey.

In addition to these skill shortages, Transmission Specialists were also identified within industry forums as being in shortage in NSW for light and heavy vehicles.

On average, approximately 44% of survey respondents in NSW and ACT indicated that they were experiencing skill shortages, with a higher proportion (57%) expecting shortages over the next 12 months.

The key factor raised by all respondents was that the shortages related to good-quality, competent and experienced tradespersons, who are very difficult to source within the labour market. They do not relate to shortages of apprentices, as industry demand for apprentices has been significantly curtailed by the tough business environment.

Barriers to overcoming skills and labour shortages

The survey results indicate several key barriers associated with skills and labour shortages within NSW and ACT. These include:

- difficulties in attracting and retaining skilled automotive labour
- difficulties in luring the right candidates into automotive trades
- the prohibitive cost of constantly upskilling staff
- the movement of skilled automotive labour towards other allied industries.

Many business operators said that skill levels observed in both qualified tradespersons and apprentices were deficient. The complexity of modern vehicles is thought to be beyond the technical capabilities of many workers as well as new entrants, particularly diagnostics and repair work.

Table 8: Priority skill shortages – NSW and ACT combined

SECTOR	OCCUPATION	ESTIMATED SHORTAGE (NUMBER)
Motor Vehicle Body and Trailer Manufacturing	Welder/Fabricator	78
Automotive Repair and Maintenance	Light Vehicle Mechanic	2,561
	Diesel Motor Mechanic	576
	Panel Beater	1,329
	Vehicle Painter	886
	Automotive Electrician	217
	Vehicle Trimmer	60
	Motorcycle Mechanic	100
	Service Adviser/Manager	130
Motor Vehicle and Parts Wholesaling	Spare Parts Interpreter	200
	Parts Salesperson	102
	Administration	55
Motor Vehicle Retailing	Salesperson	250
	Car Detailer	139
Motor Vehicle Parts and Tyre Retailing	Spare Parts Salesperson	117
	Spare Parts Interpreter	98
	Tyre Fitter	190
Bicycle Retailing	Bicycle Mechanic	120
Marine Equipment Retailing	Marine Mechanic	58
Outdoor Power Equipment*	Small Engine Mechanic	NA
	Salesperson	NA
Vocational Education and Training	Automotive Teacher	Reports of shortages across training providers

Source: 2015 Automotive Environmental Scan Survey; modelled ABS labour force data.
* Estimates not available for this sector.

A contributing factor, according to industry, is the fact that many people directed towards an automotive career, particularly through the school system, are often the wrong candidates. As a result of such poor advice or direction, the attrition rate for automotive apprentices is unacceptably high (almost 50%) and this has been the case for many years.

It was also reported that skilled automotive tradespersons were still being lured towards the mining and resources and building and construction industries in the search for greater monetary rewards, which affects the available supply of skilled labour and further contributes to skill shortages.

Solutions and potential sources of labour

The industry is highly critical of the role of school careers advisers and the information they provide to students. There is a belief that many careers advisers are not specifically trained for the position and not abreast of the skill and technical requirements of the automotive industry. Many continue to believe that automotive trades are for students with poorer academic abilities or those who are unable to complete their secondary education. Consequently, they will steer such underachieving students towards automotive trades.

The technological sophistication of modern vehicles requires apprentices with proficiency in maths, science, IT and English. It is this type of apprentice who will be best placed to understand the operation of complex computerised mechanical and electrical systems inherent in motor vehicles. Unfortunately, such higher-achieving students are steered towards university, not just by careers advisers but also by their parents.

It is critical that negative perceptions and stereotypes about the automotive industry are corrected within the school and home environments. This will require a concerted education and marketing campaign with widespread industry stakeholder participation. Automotive businesses will not accept students without Year 11 or Year 12 credentials and this message needs to be widely understood within the community. Many automotive employers have also suggested the need for national aptitude tests that incorporate a literacy and numeracy assessment as a compulsory requirement to qualify apprentices before they are offered an apprenticeship contract.

Many business operators are showing greater creativity in the strategies and incentives used to attract and retain skilled labour. This could involve the use of monetary and non-monetary rewards, training incentives, career pathways and other initiatives. The Heavy Vehicle sector actively uses such strategies to its advantage and is reported to have much better retention rates.

VICTORIA

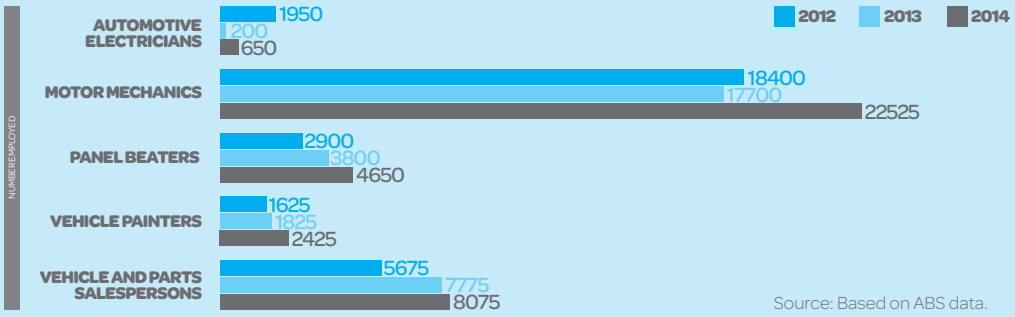
Victoria's automotive workforce grew by 1,454 or 1.5% during 2013-14. Total industry employment was recorded at 100,687 for the period and remains the largest of any state. This situation will change when motor vehicle and parts manufacturing operations cease at the end of 2017. On current trends, modelling undertaken by ASA indicates that Victoria's total automotive workforce will reduce to approximately 87,000 after the closure of manufacturing operations.

Table 9: Summary snapshot, automotive industry, Victoria

STATE SUMMARY STAPSHOT	
Employment	100,687
Motor vehicle fleet, January 2014	4,483,098 vehicles
Average age of motor vehicle fleet	10.2 years
Number of automotive businesses	15,834
Employer-sponsored 457 visa Motor Mechanics as at September 2014	700 persons

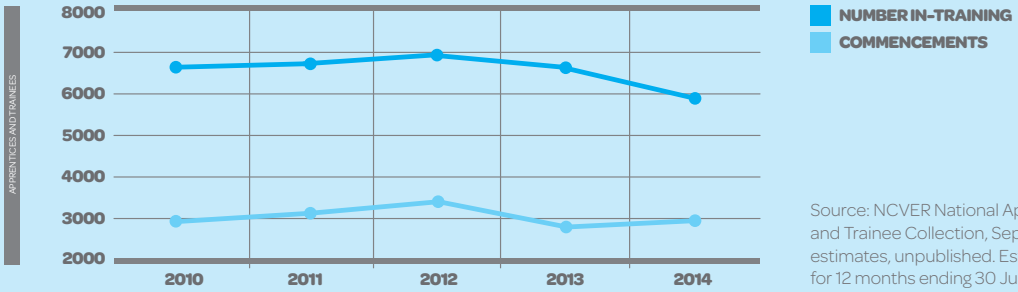
Source: Based on ABS, NCVER and Department of Immigration and Border Protection data.

Figure 11: Number employed in key occupations, Victoria, year ending February



Source: Based on ABS data.

Figure 12: Apprentices and trainees, AUR Training Package, Victoria



Source: NCVER National Apprentice and Trainee Collection, September 2014 estimates, unpublished. Estimates are for 12 months ending 30 June.

Table 10 shows the distribution of employment across the automotive industry in Victoria. According to ABS data, apart from the Automotive Repair and Maintenance, Motor Vehicle Retailing the Bicycle Retailing sectors, all other automotive sectors experienced a decline in employment, in comparison to the previous year.

At the occupational level, ABS data also shows that for the year ending February 2014, there was a large increase in the number of Motor Mechanics employed in Victoria in comparison with the same reference period over previous years (Figure 11). Victoria also has more employer sponsored 457 visa Motor Mechanics than any other state (700) (Table 9).

Figure 12 shows that the number of apprentices and trainees in-training within the AUR Training Package in Victoria has fallen by approximately 1,000 since 2012. Annual commencements have also fallen, but by a lesser magnitude.

At the business level, the latest available data (2012-13) shows a net reduction of 490 automotive businesses. Business losses were observed in virtually all sectors, with the Automotive Repair and Maintenance and Motor Vehicle and Parts Wholesaling sectors recording the highest losses (255 and 102 respectively).

Sole proprietors with no employees accounted for the bulk of these business closures, particularly within the Vehicle Repair and Maintenance and Vehicle Body Repair subsectors. Reasons for these closures include an inability to keep up with technological change, a lack of investment in capital equipment and training, the rise of competitive new business models, and age-related retirements.

It must be acknowledged that data for the number of businesses by sector (Table 10) relates to the previous financial year (2012-13) and is therefore a lagging indicator. The fact that total industry employment has risen means that ongoing business consolidation and rationalisation is not necessarily a negative outcome. The health of any industry is not just attributable to the number of businesses within it, but the actual performance of those businesses.

Table 10: Sector profile, automotive industry, Victoria

SECTOR	EMPLOYMENT YEAR ENDING JUNE 2014	NUMBER OF BUSINESSES AS AT END JUNE 2013	CHANGE IN NUMBER OF BUSINESSES FROM PREVIOUS YEAR
Motor Vehicle and Parts Manufacturing	24,425	984	-42
Motor Vehicle and Parts Wholesaling	8,400	1,498	-102
Motor Vehicle Retailing	18,400	1,551	-24
Motor Vehicle Parts and Tyre Retailing	4,625	914	-24
Fuel Retailing	5,200	901	-19
Automotive Repair and Maintenance	34,950	9,167	-255
Passenger Car Rental and Hiring	1,897	371	-19
Bicycle Retailing	1,430	295	+5
Marine Equipment Retailing	490	153	-10
Outdoor Power Equipment Retailing*	870	NA	NA
TOTAL	**100,687**	**15,834**	**-490**

Source: ABS data. *Note: Official estimates for this sector are unavailable. Anecdotal national industry employment estimates are provided and apportioned by state according to ABS state population distributions. NA: Estimates not available.

Current skill shortages

Results from the 2015 E-Scan survey were modelled in conjunction with ABS labour force data to derive estimates of key skill shortages for Victoria (see Table 11). The skill shortages in Table 11 are not a complete list of all occupations reported as being in shortage, but rather the most critical and numerically significant shortages as identified by Victorian respondents in the survey. Stakeholder intelligence gathered within industry forums in Victoria supports these results.

Compared with previous years, skilled labour shortages have reduced in Victoria and this is also the case in other states and territories. Victoria has also moved towards a greater reliance on imported labour (457 visa workers) than any other state or territory. Business consultations indicate that this preference for imported labour is associated with difficulties in sourcing appropriately skilled technicians locally, as well as claims that imported workers have a better work ethic, productivity and skills base than many locally trained technicians.

Table 11: Priority skill shortages, Victoria

SECTOR	OCCUPATION	ESTIMATED SHORTAGE (NUMBER)
Automotive Repair and Maintenance	Light Vehicle Mechanic	1,206
	Diesel Motor Mechanic	390
	Panel Beater	588
	Vehicle Painter	420
	Automotive Electrician	125
	Motorcycle Mechanic	50
	Mobile Plant Technician	42
	Service Advisor	80
Motor Vehicle and Parts Wholesaling	Spare Parts Interpreter	145
	Parts Salesperson	59
Motor Vehicle Retailing	Vehicle Salesperson	252
	Finance and Insurance staff	90
Motor Vehicle Parts and Tyre retailing	Spare Parts Salesperson	128
	Spare Parts Interpreter	85
Bicycle Retailing	Bicycle Mechanic	140
Vocational Education and Training	Automotive Teacher	Reports of shortages across public and private training providers

Source: 2015 Automotive Environmental Scan Survey; modelled ABS labour force data.

Overall, 36% of Victorian survey respondents reported experiencing skill shortages within the occupations identified in Table 11. This represents the lowest proportion of skill shortages recorded for Victoria over the past four years of the survey. Over the next 12 months, 50% of all Victorian respondents expect to be affected by skill shortages in line with business expectations of mild growth and increased consumer confidence and spending.

Barriers to overcoming skills and labour shortages

Survey respondents reported that the key barriers contributing to skill shortages in Victoria were:

- a lack of sufficient new entrants into the automotive trades
- the attraction of skilled automotive labour towards other industries
- the poor quality of candidates within the labour market

- negative perceptions concerning the automotive industry
- increasingly complex trade and knowledge requirements
- lack of access to OEM technical information.

Industry constantly reinforced the need to have the right candidates entering the automotive trades in both technical repair and sales roles. Respondents said that too often new entrants did not have adequate technical knowledge, diagnostics skills, literacy and numeracy, work ethic, productivity and other key workplace requirements. It was also reported that automotive technological development had outpaced our capacity to train entrants, requiring imported labour to fill skill shortages and contributing to the declining number of apprentices and trainees.

Other intelligence gained from industry forums supported the notion that there were two distinct levels of skill shortages – high-end technicians or master technicians and apprentices. Many master technicians employed within car dealerships were reported to have left their positions, either in search of a lifestyle change or in the hope of establishing their own businesses and specialising in a particular vehicle brand or technology.

Other industry stakeholders also reported a lack of affinity between automotive trainers and students within the VET system, which has had an adverse effect on the delivery of course material and student engagement. This is largely due to some trainers' inability to understand the needs or connect with their younger students and compounded by their limited or outdated knowledge of technology while trying to teach a generation that is very technologically savvy.

Solutions and potential sources of labour

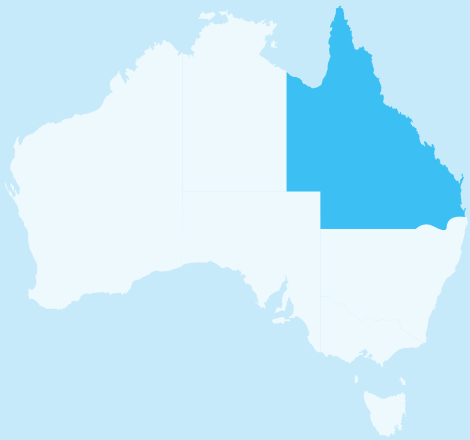
Although alleviating skill shortages is not a straightforward exercise, industry stakeholders raised several suggestions that should be considered as part of any potential solutions.

Attracting high-calibre entrants may require an awareness campaign to promote the industry's attractive features and benefits. The components could include:

- a marketing and awareness campaign undertaken as a joint venture by all stakeholders. This would focus on promoting the diversity of career prospects to the education sector and broader community. This would be timely given the impending exit of the car manufacturers
- educating all stakeholders, including government, that the automotive industry is technologically more complex than ever before. This means there are greater demands on training to ensure that students are properly trained with appropriate resources
- improving the quality and quantity of training delivery. Accelerated training programs that reduce nominal training hours are not favoured by industry
- improving the credentials of teaching staff by employing or attracting professionals of a high calibre who are working in the industry. This would require targeting individuals with knowledge and expertise in their respective fields and offering attractive incentives.

Lack of access to OEM technical repair information may be overcome through independent repairers building strategic partnerships with OEMs and their affiliated dealerships, with the purpose of sharing information and best practice. There are successful examples of such partnerships within the business community that have led to favourable outcomes for all parties.

A final key point is that the demographics of the modern apprentice are changing. Typically, new entrants are older (21 or more years) than in the past. This change needs to be reflected in remuneration and government assistance, such as a wage supplement.



QUEENSLAND

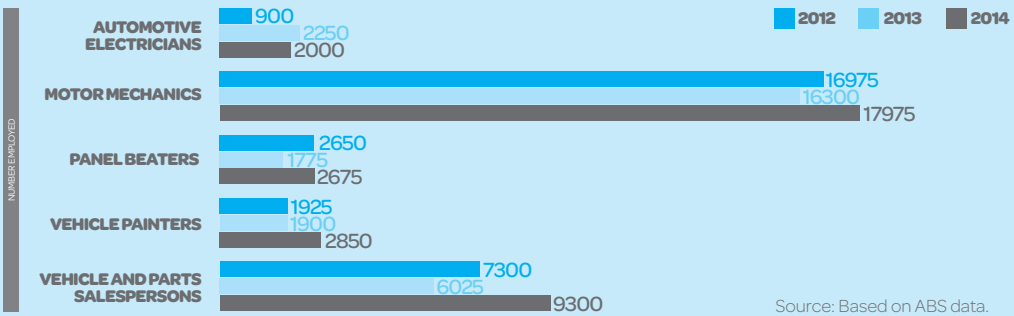
According to ABS data, Queensland recorded a total workforce of 92,564 people employed within the automotive industry in 2013-14. Whilst this level is much higher than previous years, this estimate must be used with caution given the changes and increased volatility observed with ABS labour force data, as detailed in Section 1. Industry employment growth is shown to be strongest within Automotive Repair and Maintenance, Fuel Retailing and the Motor Vehicle Retailing sector in Queensland.

Table 12: Summary snapshot, automotive industry, Queensland.

STATE SUMMARY STAPSHOT	
Employment	92,564 people
Motor vehicle fleet, January 2014	3,705,400 vehicles
Average age of motor vehicle fleet	9.6 years
Number of automotive businesses	13,675
Employer-sponsored 457 visa Motor Mechanics as at September 2014	380 people

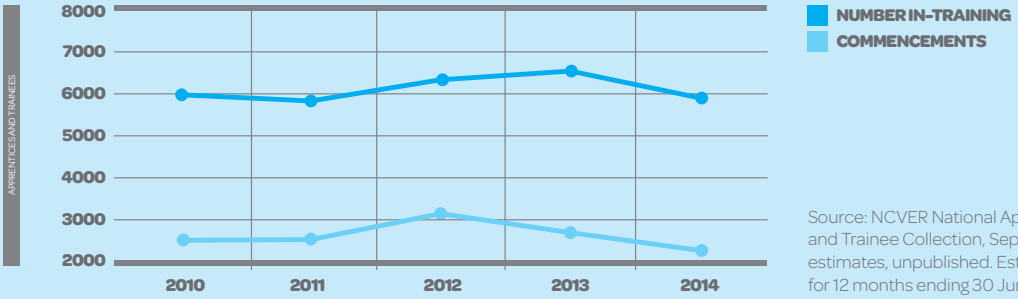
Source: Based on ABS, NCVER and Department of Immigration and Border Protection data.

Figure 13: Number employed in key occupations, Queensland, year ending February



Source: Based on ABS data.

Figure 14: Apprentices and trainees, AUR Training Packages, Queensland.



Source: NCVER National Apprentice and Trainee Collection, September 2014 estimates, unpublished. Estimates are for 12 months ending 30 June.

At the business level, the latest available data (2012-13) shows a net loss of 754 automotive businesses within Queensland, of which more than half were within the Automotive Repair and Maintenance sector (Table 13). Sole proprietor businesses with no employees comprised the bulk of closures, particularly within the Vehicle Body Repair and Vehicle Mechanical Repair subsectors. Although business data is a lagging indicator, it demonstrates a pattern of business consolidation and rationalisation within these sectors as well as industry wide.

Discussions with industry stakeholders revealed a positive business environment within the Light Vehicle subsector. Business and consumer confidence were reported as rising, which has led to an increase in vehicle servicing and more spending on mechanical repairs by consumers.

Stakeholders supported the findings that business consolidation is increasing within the Vehicle Body and Mechanical Repair subsectors and that many small independent repairers have become unviable. Reasons for this include a lack of capital investment and skills training to meet the needs of servicing and repairing modern vehicles; lack of access to OEM technical information; rising business costs; and a failure to comply with industry standards.

In the past six months there has been a downturn in business conditions within the Heavy Vehicle sector. Sales of trucks have decreased slightly compared with last year and while apprentice intake for the sector remains high, indications are that it will not hire as many apprentices over the next 12 months unless business conditions improve.

Business consolidation is also reported to be increasing, with many smaller transport companies being acquired by larger and more dominant players. These big companies often have internal workshops and do not require the services of external parties. These circumstances have produced a small surplus of labour within the sector.

Table 13: Sector profile, automotive industry, Queensland

SECTOR	EMPLOYMENT YEAR ENDING JUNE 2014	NUMBER OF BUSINESSES AS AT END JUNE 2013	CHANGE IN NUMBER OF BUSINESSES FROM PREVIOUS YEAR
Motor Vehicle and Parts Manufacturing	7,550	695	-42
Motor Vehicle and Parts Wholesaling	5,425	1,119	-89
Motor Vehicle Retailing	17,700	1,337	-82
Motor Vehicle Parts and Tyre Retailing	7,675	934	-61
Fuel Retailing	13,225	779	-27
Automotive Repair and Maintenance	36,350	7,965	-413
Passenger Car Rental and Hiring	1,700	346	-24
Bicycle Retailing	941	185	-5
Marine Equipment Retailing	1,298	315	-11
Outdoor Power Equipment Retailing*	700	NA	NA
TOTAL	**92,564**	**13,675**	**-754**

Source: ABS data. *Note: Official estimates for this sector are unavailable. Anecdotal national industry employment estimates are provided and apportioned by state according to ABS state population distributions. NA: Estimates not available.

Table 14: Priority skill shortages, Queensland

SECTOR	OCCUPATION	ESTIMATED SHORTAGE (NUMBER)
Automotive Repair and Maintenance	Light Vehicle Mechanic	921
	Diesel Motor Mechanic	138
	Panel Beater	397
	Vehicle Painter	295
	Automotive Electrician	135
	Transmission Mechanic	50
Motor Vehicle and Parts Wholesaling	Spare Parts Interpreter	112
	Parts Salesperson	65
Motor Vehicle Parts and Tyre retailing	Spare Parts Salesperson	62
	Spare Parts Interpreter	81
Bicycle Retailing	Bicycle Mechanic	145
Vocational Education and Training	Automotive Teacher	Reports of some shortages across training providers

Source: 2015 Automotive Environmental Scan Survey; modelled ABS labour force data.

Current skill shortages

ASA modelled results from the 2015 E-Scan survey in conjunction with ABS labour force data to derive estimates of key skill shortages in Queensland, as shown in Table 14.

The skill shortages identified in Table 14 are not a complete list of all occupations reported as being in shortage, but rather the most critical and numerically significant shortages as identified by Queensland respondents in the E-Scan survey.

Industry stakeholders also reported that dual trade technicians were particularly sought after, especially within the Heavy Vehicle sector. The demand is for technicians with both mechanical and electrical skills who can effectively diagnose and repair vehicle faults.

Overall, 33% of Queensland survey respondents reported experiencing skill shortages within the occupations identified in Table 14. Over the next 12 months, 43% of all respondents indicated that they expected to be affected by skill shortages.

Barriers to overcoming skills and labour shortages

Key barriers to overcoming skills and labour shortages as reported by industry in Queensland include:

- the attraction of labour to other industries (mining and resources, building and construction)
- the lack of sufficient new entrants
- the poor quality of available candidates
- low wages.

Industry stakeholders reported that while there was now some movement of automotive labour from mining and resources back towards the automotive industry, this transition had not necessarily been smooth. With the ever-increasing pace of technological change, industry noted that tradespeople such as diesel fitters (mobile plant technicians) were struggling to cope with the diagnostics skill requirements. This is due to the fact that these workers were primarily replacing parts while working in mining and are severely challenged when called on to fix machinery on the side of the road.

It was also suggested that consistency with training plans is a problem across the state. Some training plans that can be delivered in Brisbane are not capable of delivery in Cairns or other regional cities. The quality of young people entering automotive trades is an issue of concern, especially in their literacy and numeracy abilities, poor hand and tool skills and a general lack of work readiness.

Solutions and potential sources of labour

Since 2012, commencements of apprentices and trainees within the AUR Training Package have steadily fallen, as shown in Figure 14. The required entry level for apprentices is now so high that many apprentices quickly realise that the trade is beyond their capabilities or does not meet their expectations, so they leave.

It is imperative that these new industry norms are communicated and marketed effectively within the education sector and to the broader community. This would help clarify expectations and requirements for new entrants and better target the calibre of applicants required. Such strategies should be jointly developed and implemented by all industry stakeholders.

Some stakeholders advocated the greater use of the career profiling and matching tools such as the 'Harrison Assessment' within the education sector. Use of such online assessment tools by schools, students and employers could help all parties gain a better understand of students' skills, passions and interests as well as their suitability for certain trades.

ASA's development of the AUR12 Training Package has sought to address concerns about the inconsistency of training delivery by training providers. In consultation with industry, all qualifications within the Training Package have been restructured to provide an expanded set of core units of competency. This will ensure greater rigour within the qualifications as well as greater consistency in their delivery by training providers across all states.

SOUTH AUSTRALIA

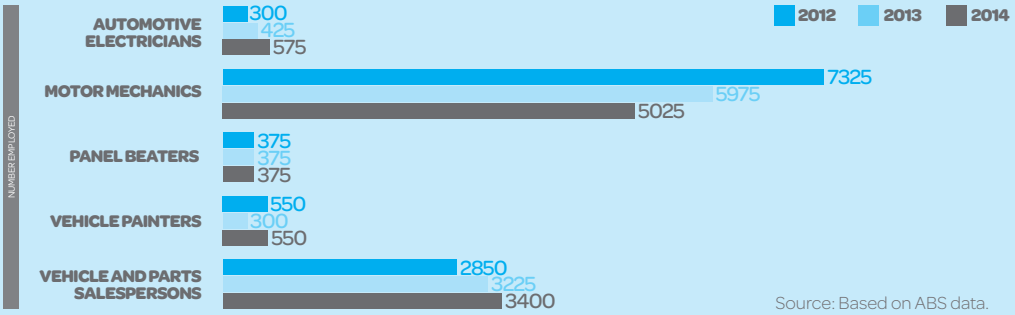
According to ABS data, South Australia recorded a total workforce of 26,820 people employed within the automotive industry in 2013-14. This represents a reduction in employment of 2,488 in comparison with the previous year. Reduced employment levels were recorded across most industry sectors, particularly Automotive Repair and Maintenance, Motor Vehicle Retailing and Fuel Retailing. The only sectors that recorded positive growth were Motor Vehicle and Parts Wholesaling and Motor Vehicle Parts and Tyre Retailing.

Table 15: Summary snapshot, automotive industry, South Australia

STATE SUMMARY STAPSHOT	
Employment	26,820 people
Motor vehicle fleet, January 2014	1,326,232 vehicles
Average age of motor vehicle fleet	11.3 years
Number of automotive businesses	4,403
Employer-sponsored 457 visa Motor Mechanics as at September 2014	50 people

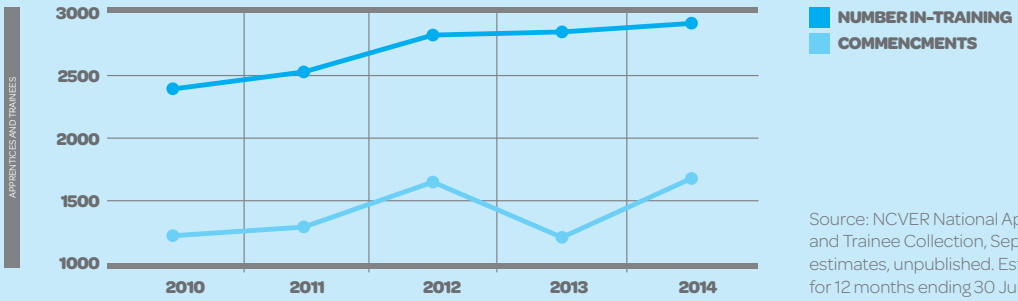
Source: Based on ABS, NCVER and Department of Immigration and Border Protection data.

Figure 15: Number employed in key occupations, South Australia, year ending February



Source: Based on ABS data.

Figure 16: Apprentices and trainees, AUR Training Package, South Australia



Source: NCVER National Apprentice and Trainee Collection, September 2014 estimates, unpublished. Estimates are for 12 months ending 30 June.

At the business level, data for 2012-13 shows a net reduction of 233 automotive businesses in South Australia. While business losses were recorded across almost all sectors, the majority of losses (67.8%) were within the Automotive Repair and Maintenance sector (see Table 16). As observed in other states, business losses were mainly confined to small businesses, particularly sole proprietor and micro-businesses within the Vehicle Mechanical and Vehicle Body Repair subsectors. Figure 15 illustrates the impact of this decline at occupation level, with a 31.4% decrease in the number of Motor Mechanics since 2012.

Tight business conditions, constraints in accessing OEM technical servicing and repair information, new industry standards for vehicle body repair workshops, the costs of capital equipment and skills training along with the retirement of many small business operators are all cited as reasons for business consolidation within the sector.

A positive development is that the number of apprentices and trainees in-training has been rising steadily over the past four years, as shown in Figure 16. South Australia is the only state to exhibit this trend.

Current skill shortages

ASA modelled results from the 2015 E-Scan survey in conjunction with ABS labour force data to derive estimates of key skill shortages in South Australia, as shown in Table 17.

Overall, 39.2% of survey respondents reported that they were affected by skill shortages and this represents the lowest proportion recorded for the state over the past four years of the survey. Furthermore, 46% of all respondents expected to be affected by skill shortages over the next 12 months. The skill shortages identified relate to fully qualified and good-quality tradespersons.

Barriers to overcoming skills and labour shortages

Key barriers that contribute to skill shortages as reported by the South Australian industry include:

- a lack of sufficient new entrants
- competition for labour from other industries (mining and resources, building and construction)
- the poor quality of available candidates.

Table 16: Sector profile, automotive industry, South Australia

SECTOR	EMPLOYMENT YEAR ENDING JUNE 2014	NUMBER OF BUSINESSES AS AT END JUNE 2013	CHANGE IN NUMBER OF BUSINESSES FROM PREVIOUS YEAR
Motor Vehicle and Parts Manufacturing	5,300	236	-15
Motor Vehicle and Parts Wholesaling	3,300	362	-19
Motor Vehicle Retailing	3,675	514	-15
Motor Vehicle Parts and Tyre Retailing	3,100	351	-13
Fuel Retailing	2,700	232	-9
Automotive Repair and Maintenance	7,450	2,504	-158
Passenger Car Rental and Hiring	375	85	-3
Bicycle Retailing	380	73	0
Marine Equipment Retailing	270	46	-1
Outdoor Power Equipment Retailing*	270	NA	NA
TOTAL	**26,820**	**4,403**	**-233**

Source: 2014 Automotive Environmental Scan Survey; Modelled ABS labour force data.

Although data shown in Figure 16 indicates that apprentice numbers have risen steadily over the past four years, the quality is poor, according to industry. Deficiencies in literacy and numeracy, inability to grasp technical concepts, poor diagnostic skills and poor work ethic were just some of the problems industry said were inherent with apprentices and even qualified tradespeople in many cases.

Industry stakeholders reiterated the need for a better standard of entrant. The technological sophistication of modern motor vehicles requires the higher-achieving school leavers, yet these candidates are being steered towards university or other industries. Unfortunately, this leaves a cohort of underachieving students for the automotive industry to choose from, which contributes to the high rate of apprentice attrition.

Table 17: Priority skill shortages, South Australia

SECTOR	OCCUPATION	ESTIMATED SHORTAGE (NUMBER)
Automotive Repair and Maintenance	Light Vehicle Mechanic	438
	Diesel Motor Mechanic	139
	Panel Beater	153
	Vehicle Painter	125
	Mobile Plant Technician	85
	Automotive Electrician	40
	Transmission Mechanic	20
	Agricultural Mechanical Technician	50
Motor Vehicle Manufacturing – Bus , Truck and Trailer	Vehicle Body/Coach Builder	15
	Welder	15
Motor Vehicle and Parts Wholesaling	Spare Parts Interpreter	37
	Parts Salesperson	40
Motor Vehicle Parts and Tyre Retailing	Spare Parts Salesperson	34
	Spare Parts Interpreter	39
Bicycle Retailing	Bicycle Mechanic	38
Vocational Education and Training	Automotive Teacher	Reports of shortages across training providers

Source: 2014 Automotive Environmental Scan Survey; Modelled ABS labour force data.

Solutions and potential sources of labour

Industry stakeholders advocated some key strategies that could assist in the attraction and retention of skilled labour, such as the marketing of the industry in the education sector and to parents as a viable career. Such a campaign should be a coordinated joint effort among industry stakeholders, with a view to raising general community awareness of the variety of career paths and showcasing the modern face of the industry.

Industry also reiterated the need for licensing automotive trade occupations. Industry felt this would help lift skill levels, vehicle safety and improve the overall standard and image of automotive tradespersons.

Finally, it was suggested that the standard of trade teachers needed to be addressed. More experienced and competent people who are working within the industry need to be attracted into trade teaching roles. This would require specific targeting and better remuneration.

WESTERN AUSTRALIA

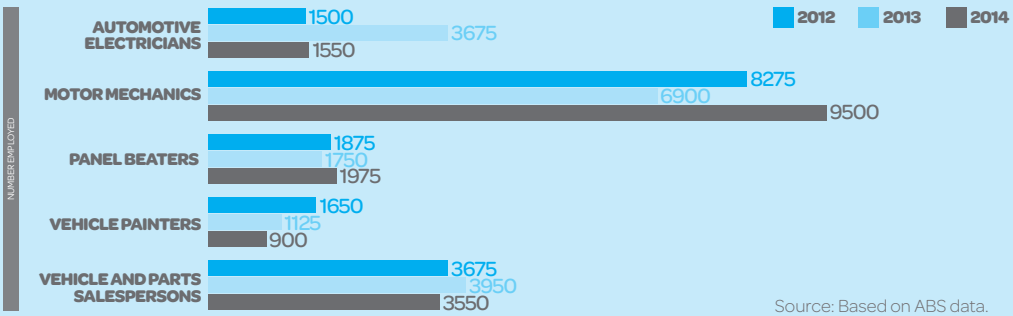
According to ABS data, Western Australia recorded a total workforce of 44,303 people employed within the automotive industry in 2013-14. Whilst this level is higher than previous years, this estimate must be used with caution given the changes and increased volatility observed with ABS labour force data, as detailed in Section 1. Whilst employment growth was strongest within the Automotive Repair and Maintenance and Fuel Retailing sectors, reduced employment levels were recorded within Motor Vehicle Parts and Tyre Retailing and the Motor Vehicle and Parts Wholesaling sectors.

Table 18: Summary snapshot, automotive industry, Western Australia

STATE SUMMARY STAPSHOT	
Employment	44,303 people
Motor vehicle fleet, January 2014	2,142,307 vehicles
Average age of motor vehicle fleet	10.3 years
Number of automotive businesses	6,592
Employer-sponsored 457 visa Motor Mechanics as at September 2014	490

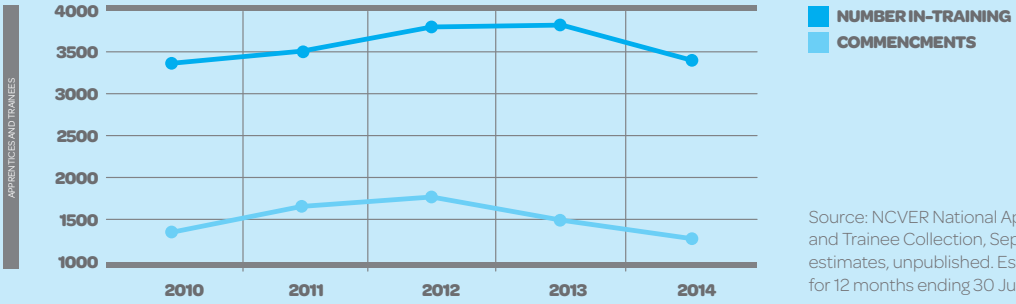
Source: Based on ABS, NCVER and Department of Immigration and Border Protection data.

Figure 17: Number employed in key occupations, Western Australia, year ended February



Source: Based on ABS data.

Figure 18: Apprentices and trainees, AUR Training Package, Western Australia



Source: NCVER National Apprentice and Trainee Collection, September 2014 estimates, unpublished. Estimates are for 12 months ending 30 June.

Population growth continues to be a key driver of economic growth in Western Australia, but indications are that it is no longer providing the same boost to economic activity as previous years. With the end of the mining and construction boom, it is expected that this will lead to more balanced growth within the state.

At the business level, records for 2012-13 revealed that there was a net loss of 346 automotive businesses. The majority of these losses (65%) were observed within one sector, Automotive Repair and Maintenance. As in other states, these losses were primarily confined to sole proprietors and micro-businesses within the Vehicle Mechanical and Vehicle Body Repair subsectors. In contrast, medium-size automotive enterprises (20 to 199 employees) actually grew within the sector.

These trends are indicative of the industry consolidation that is being observed nationally. Many small business operators are facing extreme pressure and struggling to remain viable. Technological change, access to OEM technical repair information, new industry standards for vehicle body repair workshops and a host of other factors outlined earlier are creating a new landscape where economies of scale and investment in capital equipment and skills training are the new benchmarks.

Figure 18 shows that overall numbers of apprentices and trainees in-training have declined over the past 12 months; annual commencements have shown a steady decline over the past two years.

Current skill shortages

ASA modelled results from the 2015 E-Scan survey in conjunction with ABS labour force data to derive estimates of key skill shortages in Western Australia, as shown in Table 20.

The skill shortages shown in Table 20 are not a complete list of all occupations reported as being in shortage, but rather the most critical and numerically significant shortages as identified by Western Australian respondents in the 2015 E-Scan survey.

Table 19: Sector profile, automotive industry, Western Australia

SECTOR	EMPLOYMENT YEAR ENDING JUNE 2014	NUMBER OF BUSINESSES AS AT END JUNE 2013	CHANGE IN NUMBER OF BUSINESSES FROM PREVIOUS YEAR
Motor Vehicle and Parts Manufacturing	3,425	292	-21
Motor Vehicle and Parts Wholesaling	1,525	460	-28
Motor Vehicle Retailing	7,850	582	-31
Motor Vehicle Parts and Tyre Retailing	2,700	499	-29
Fuel Retailing	5,800	336	+5
Automotive Repair and Maintenance	20,875	4,035	-225
Passenger Car Rental and Hiring	700	165	-11
Bicycle Retailing	430	88	0
Marine Equipment Retailing	600	135	-6
Outdoor Power Equipment Retailing*	398	NA	NA
TOTAL	**44,303**	**6,592**	**-346**

Source: ABS data. *Note: Official estimates for this sector are unavailable. Anecdotal national industry employment estimates are provided and apportioned by state according to ABS state population distributions. NA: Estimates not available.

Overall, 32% of respondents reported that they were affected by skill shortages. This represents the lowest proportion of skill shortages recorded for the state over the past four years of the survey. Furthermore, 43% of respondents expected to be affected by skill shortages over the next 12 months. The key issue is the lack of quality skilled labour. Industry stakeholders reported that while there were qualified tradespeople within the labour market, their skills were of a low calibre.

Barriers to overcoming skills and labour shortages

Key barriers as reported by industry that contribute to automotive skill shortages in Western Australia include:

- competition for labour from other industries (mining and resources, building and construction)
- a lack of sufficient new entrants
- the poor quality of available candidates
- negative perceptions of the automotive industry.

Table 20: Priority skill shortages, Western Australia

SECTOR	OCCUPATION	ESTIMATED SHORTAGE (NUMBER)
Automotive Repair and Maintenance	Light Vehicle Mechanic	413
	Diesel Motor Mechanic	220
	Panel Beater	200
	Vehicle Painter	152
	Automotive Electrician	75
	Marine Mechanic	30
	Mobile Plant Technician	64
	Service Adviser	83
Motor Vehicle and Parts Wholesaling	Spare Parts Interpreter	43
	Parts Salesperson	44
Motor Vehicle Retailing	Vehicle Salesperson	90
Motor Vehicle Parts and Tyre retailing	Spare Parts Salesperson	45
	Spare Parts Interpreter	50
Bicycle Retailing	Bicycle Mechanic	100
Vocational Education and Training	Automotive Teacher	Reports of shortages across some training providers

Source: 2014 Automotive Environmental Scan Survey; modelled ABS labour force data.

Industry stakeholders also reported that employer engagement with the apprenticeship system was mixed. Although apprentice recruitment within the Heavy Vehicle sector remains relatively stable, there is greater variability within the Light Vehicle Mechanical and Vehicle Body Repair subsectors. This is largely due to movements within the business cycle, as well as ongoing business consolidation and industry restructuring.

Some employers reported concerns around the standard of teaching within TAFE and in particular the lack of student engagement in the classroom environment. The lack of personalised attention and failure to connect with today's generation of students was seen by many as a contributing factor towards compromised knowledge and skills transfer within the TAFE environment. Consequently, many small business operators prefer to employ 457 visa category workers instead of hiring apprentices or locally trained technicians.

Solutions and potential sources of labour

Although labour shortages are lower in Western Australia compared with previous years their impact, particularly for small business, can be significant. Industry stakeholders advised ASA of several strategies that could assist in the attraction and retention of skilled labour as well as strengthen the quality of skills within the workforce.

These include:

- Better support for employers to hire apprentices through the peaks and troughs of the business cycle. This could take the form of employer subsidies or tax breaks that relate specifically to the training and retention of apprentices for a specified time.
- The effective marketing and promotion of the industry in the education sector and to parents as a viable career option. This should be a long-term and coordinated joint effort among industry stakeholders to showcase the modern face of the industry and dispel negative community perceptions about automotive trades.
- Better screening of potential entrants at school level. The technology associated with modern motor vehicles requires proficiency in maths, science IT and English. Successful completion of Year 11 or Year 12 is a now an industry requirement.
- The calibre of teaching staff within TAFE requires attention. TAFE needs to employ or attract high-quality professionals who are working in the industry. This means targeting individuals with knowledge and expertise in their respective fields and offering attractive incentives.

TASMANIA

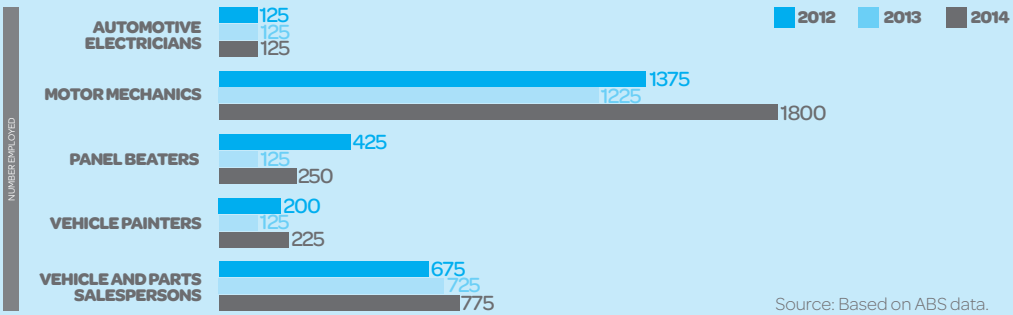
Over the past few years, Tasmania has endured difficult economic conditions that have had an adverse impact on the business environment and the health of the economy. Although Tasmania still lags the mainland states on economic growth, there are encouraging signs that its economy is improving. The Tasmanian jobless rate has fallen from 8.2% in August 2013 to 6.8% in December 2014 and there are positive signs in building and construction activity.

Table 21: Summary snapshot, automotive industry, Tasmania

STATE SUMMARY STAPSHOT	
Employment	7,710 people
Motor vehicle fleet, January 2014	442,575 vehicles
Average age of motor vehicle fleet	12.5 years
Number of automotive businesses	1,324
Employer sponsored 457 visa Motor Mechanics as at September 2014	0

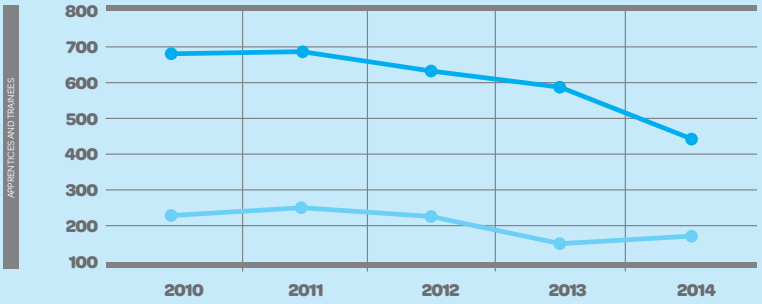
Source: Based on ABS, NCVER and Department of Immigration and Border Protection data.

Figure 19: Number employed in key occupations, Tasmania, year ended February



Source: Based on ABS data.

Figure 20: Apprentices and trainees, AUR Training Package, Tasmania



Source: NCVER National Apprentice and Trainee Collection, September 2014 estimates, unpublished. Estimates are for 12 months ending 30 June.

These improved conditions have had a positive impact on the automotive industry. Industry stakeholders reported a moderate improvement in business conditions in Hobart, particularly in the Mechanical Repair sector. Consumer confidence appears to be rising, which has led to increased spending on vehicle servicing and a rise in apprentice recruitment by businesses.

Conditions within the Vehicle Body Repair sector are less favourable, with ongoing restructuring and consolidation creating a very competitive business environment. This has been detrimental for many small businesses in Hobart and Launceston, especially those that have not invested in capital improvements and skills training.

Activity within the Heavy Vehicle sector remains subdued as a result of a prolonged slowdown within the forestry industry. Business conditions within the Recreational Vehicles sector are also challenging, given that motor homes and caravans are a luxury item. Increased costs to transport recreational vehicles from the mainland and higher rates of stamp duty have created an uneven trading environment for businesses within the sector.

Overall, total employment within Tasmania's automotive industry was recorded at 7,710 for 2013-14. Table 22 shows the distribution of employment across industry sectors.

ABS business counts data shows there were approximately 59 net automotive business closures, but this data is for 2012-13 and is therefore a lagging indicator. Nevertheless, it illustrates that business consolidation is continuing, particularly within the Automotive Repair and Maintenance sector which experienced a net loss of 41 businesses over the period.

Figure 20 shows that the number of apprentices and trainees in-training within the AUR Training Package has fallen significantly over the past four years. An encouraging sign, however, is that annual commencements within the Training Package have risen over the past 12 months, in line with positive business and consumer sentiment.

Table 22: Sector profile, automotive industry, Tasmania

SECTOR	EMPLOYMENT YEAR ENDING JUNE 2014	NUMBER OF BUSINESSES AS AT END JUNE 2013	CHANGE IN NUMBER OF BUSINESSES FROM PREVIOUS YEAR
Motor Vehicle and Parts Manufacturing	350	37	+2
Motor Vehicle and Parts Wholesaling	375	57	-9
Motor Vehicle Retailing	1,875	139	+1
Motor Vehicle Parts and Tyre Retailing	500	75	-5
Fuel Retailing	1,175	155	-3
Automotive Repair and Maintenance	2,975	696	-41
Passenger Car Rental and Hiring	160	31	-2
Bicycle Retailing	115	114	+1
Marine Equipment Retailing	100	20	-3
Outdoor Power Equipment Retailing*	85	NA	NA
TOTAL	**7,710**	**1,324**	**-59**

Source: ABS data. *Note: Official estimates for this sector are unavailable. Anecdotal national industry employment estimates are provided and apportioned by state according to ABS state population distributions. NA: Estimates not available.

Table 23: Priority skill shortages, Tasmania

SECTOR	OCCUPATION	ESTIMATED SHORTAGE
Automotive Repair and Maintenance	Light Vehicle Mechanic	99
	Diesel Motor Mechanic	34
	Mobile Plant Mechanic	25
	Service Adviser	20
	Automotive Electrician	11
Motor Vehicle Retailing	Vehicle Salesperson	26
Motor Vehicle Parts and Tyre Retailing	Parts Salesperson	11
	Parts Interpreter	6
Vocational Education and Training	Automotive Teacher	1-2

Source: 2014 Automotive Environmental Scan Survey

Current skill shortages

ASA modelled results from the 2015 E-Scan survey in conjunction with ABS labour force data to derive the estimates shown in Table 23 of key skill shortages in Tasmania.

The skill shortages identified in Table 23 were confirmed in discussions with industry stakeholders during forums held in Tasmania as part of the E-Scan process. Coach builders were also reported to be in shortage by industry stakeholders.

Overall, 45.1% of Tasmanian survey respondents reported that they were affected by skill shortages, with 51% expecting that skill shortages would affect their business operations at some point over the next 12 months.

The skill shortages identified related to qualified and experienced tradespersons, who were very difficult to find. Stakeholder consultations conducted in Launceston also revealed that due to the lack of sufficient qualified tradespeople, employers were advertising for third or fourth-year apprentices, which is unprecedented.

Barriers to overcoming skills and labour shortages

Industry stakeholders have identified several key barriers that they believe contribute to automotive skill shortages in Tasmania. These include:

- a lack of sufficient people entering automotive trades
- the attraction of labour to other industries (mining, building and construction)
- the poor quality of available candidates.

The lack of sufficient entrants is a key problem affecting all states and territories. In Tasmania, subdued economic conditions over a prolonged period have affected the demand for apprentices, with flow-on effects to the wider community.

Other barriers raised by industry included:

- the lack of diagnostics skills training, particularly at Certificate IV level, to complement the use of scan tools in modern vehicle servicing

- a lack of sufficient on-the-job training for apprentices due to the time and business constraints faced by employers
- the presence of very thin training markets in Tasmania, such as engine reconditioning, meant that a lot of automotive training was not available
- the culture of parts replacement rather than the repair of vehicle components, which industry reported as affecting the quality of skills and knowledge within the workforce
- the lack of individual attention for students within the TAFE environment. Industry believes this is impeding the progress of students, which has further implications for apprentice attrition rates.

Solutions and potential sources of labour

With an emerging upturn in the economic environment, employers may be better placed to offer apprenticeships. There is some evidence that this is beginning to occur, but it needs to be augmented by support from all stakeholders to be sustained in the long term.

To ensure the quality of students' overall training, there must be an open line of communication between those delivering training in the classroom environment and those responsible for training in the workplace. In addition, the development of the student's skills may be monitored by a regular skills audit conducted in the workplace. Often this is not effectively put into practice because of business and time constraints.

Students spend limited hours in a formal classroom setting, so it may be appropriate for employers to revise their expectations of apprentices' knowledge base and be more realistic about their calibre. This would highlight the need for employers to engage in more rigorous training and assessment of the apprentice's skills base.

The automotive industry is complex and constantly evolving. The demands on training are greater because the knowledge and knowhow of yesteryear are being quickly superseded by technological change. The industry's skill base is more diverse and employers should not expect that training in a specific area can be applied in all situations.

NORTHERN TERRITORY

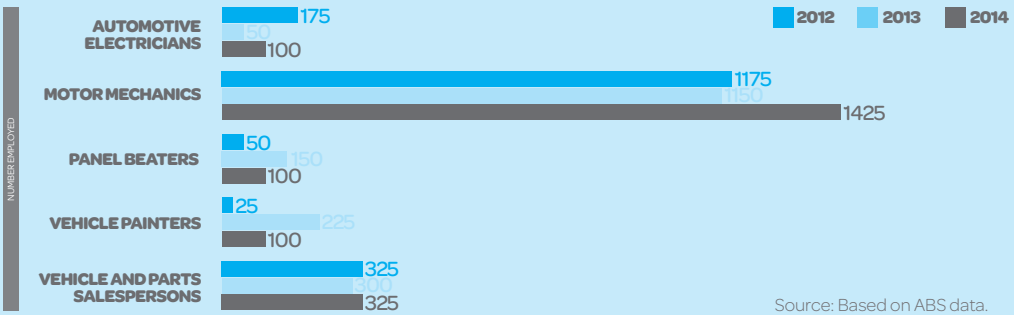
The Northern Territory has the best-performing economy in the nation and the lowest unemployment rate (3.6% in trend terms). While the strength of the economy is supported by major gas projects, economic growth is 1% lower for the Northern Territory compared with last year.

Despite the high growth, residents have been leaving the Northern Territory in large numbers. Population data shows the NT experienced its largest four-year net loss through interstate migration, with 8,000 residents leaving between December 2009 and March 2014. There is some suggestion that cost of living pressures driven by the resources boom has created a two-speed economy, which is driving out many residents and discouraging new arrivals.

Table 24: Summary snapshot, automotive industry, Northern Territory

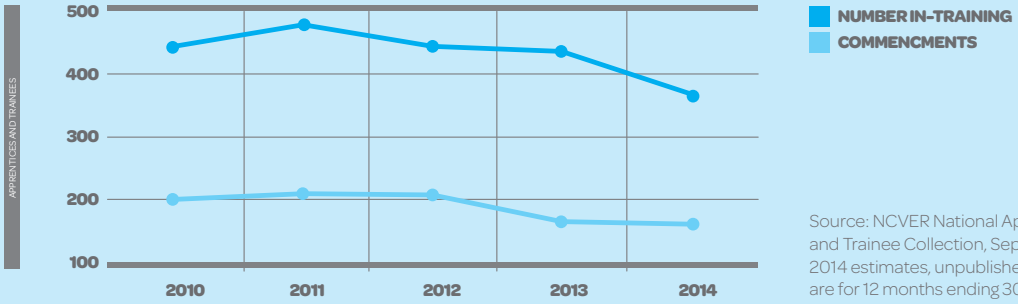
STATE SUMMARY STAPSHOT	
Employment	3,464 people
Motor vehicle fleet, January 2014	152,177 vehicles
Average age of motor vehicle fleet	8.9 years
Number of automotive businesses	624
Employer sponsored 457 visa Motor Mechanics as at September 2014	40

Figure 21: Number employed in key occupations, Northern Territory, year ending February



Source: Based on ABS data.

Figure 22: Apprentices and trainees, AUR Training Package, Northern Territory



Source: NCVER National Apprentice and Trainee Collection, September 2014 estimates, unpublished. Estimates are for 12 months ending 30 June.

These economic trends have had a negative impact on the automotive industry. ABS data shows aggregate industry employment at 3,464 in 2013-14 (Table 25). This represents a decrease of 320 in employment over the previous year. Reductions in employment were observed in Fuel Retailing, Motor Vehicle and Parts Wholesaling and Motor Vehicle Parts and Tyre Retailing. Whilst some employment growth was recorded in other sectors, this was not sufficient to counteract overall industry losses. At the business level, ABS business counts data shows that there was a net loss of 19 automotive businesses during 2012-13 which is the lastest data available.

Figure 21 shows that Motor Mechanic is the only occupation that has grown markedly in the NT in the past three years. Apprentices and trainees in-training, however, have fallen significantly since 2011 and are at their lowest level in five years. A similar decline is also evident in annual commencements of apprentices and trainees (see Figure 22).

Current skill shortages

ASA modelled results from the 2015 Automotive Environmental Scan Survey in conjunction with ABS labour force data to derive the estimates shown in Table 26 of key skill shortages for the Northern Territory.

The skill shortages identified in Table 26 are not a complete list of all occupations reported as being in shortage, but rather the most critical and numerically significant shortages as identified by Northern Territory respondents in the survey. Discussions with industry stakeholders also confirmed these as being key skill shortages. All skill shortages listed relate to quality and experienced labour, which is difficult to source.

Barriers to overcoming skills and labour shortages

Industry stakeholders identified several key barriers that contribute to automotive skill shortages in the Northern Territory. These include:

- difficulties in attracting quality skilled labour to the Northern Territory due to remoteness, climate, high cost of living and other factors
- difficulties with workforce retention and skills utilisation due to high job churn and competition with the mining, resources and construction industries
- industry concerns around the quality of existing training delivery
- low levels of student engagement with the classroom environment.

Table 25: Sector profile, automotive industry, Northern Territory

SECTOR	EMPLOYMENT YEAR ENDING JUNE 2014	NUMBER OF BUSINESSES AS AT END JUNE 2013	CHANGE IN NUMBER OF BUSINESSES FROM PREVIOUS YEAR
Motor Vehicle and Parts Manufacturing	175	15	-1
Motor Vehicle and Parts Wholesaling	175	33	-3
Motor Vehicle Retailing	575	64	-3
Motor Vehicle Parts and Tyre Retailing	200	33	-7
Fuel Retailing	200	46	+1
Automotive Repair and Maintenance	1,900	392	-11
Passenger Car Rental and Hiring	60	19	+2
Bicycle Retailing	50	12	0
Marine Equipment Retailing	90	10	+3
Outdoor Power Equipment Retailing*	39	NA	NA
TOTAL	**3,464**	**624**	**-19**

Source: ABS Labour Force Statistics; ABS Counts of Australian Businesses, including Entries and Exits (Cat. No. 8165.0).
*Note: Official estimates for this sector are unavailable. Anecdotal national industry employment estimates are provided and apportioned by state according to ABS state population distributions. NA: Estimates not available.

Table 26: Priority skill shortages, Northern Territory

SECTOR	OCCUPATION	ESTIMATED SHORTAGE (NUMBER)
Automotive Repair and Maintenance	Light Vehicle Mechanic	78
	Diesel Motor Mechanic	70
	Panel Beater	33
	Vehicle Painter	22
	Automotive Electrician	20
Motor Vehicle Manufacturing – Bus, Truck and Trailer	Welders/Metal Fabrication	10
Motor Vehicle and Parts Wholesaling	Spare Parts Interpreter	15
	Parts Salesperson	15
Motor Vehicle Parts and Tyre Retailing	Spare Parts Salesperson	15
	Spare Parts Interpreter	15
Bicycle Retailing	Bicycle Mechanic	10

Source: 2014 Automotive Environmental Scan Survey; Modelled ABS labour force data.

Solutions and potential sources of labour

The main constraints affecting the NT labour market – remoteness and competition for skilled labour – are difficult to overcome and require multi-faceted approaches and solutions.

Key measures must target remuneration, career prospects, lifestyle benefits and other incentives. Stakeholders have advised of the need for:

- relocation assistance or rental assistance, subsidised health insurance and other incentives to offset the high cost of living
- regular use of financial and non-financial rewards to help prevent persistent job churn
- industry promotion of automotive trades as lifelong careers with specialised skill requirements that are portable, internationally recognised and in constant demand. This should be marketed particularly in the education sector and broader community.
- strengthening the quality of local training delivery through better resources and better qualified and technologically up-to-date teachers. This would improve teaching standards and facilitate better student engagement in the classroom, which is reported to be a key factor in the high attrition rate of apprentices.

Section 3 Current impact of training packages

STAKEHOLDER ENGAGEMENT STRATEGY

Auto Skills Australia (ASA) relies on intelligence from industry and the vocational education and training (VET) sector to ensure that its Training Packages are contemporary and meet the needs of automotive workplaces.

This information is obtained through structured consultation arrangements that seek to engage a broad range of key stakeholders including industry and its peak bodies, unions, government and registered training organisations. The specialised nature of the industry demands that qualifications, and engagement with stakeholders, are targeted around specific job roles and work functions. ASA has carefully developed its consultation structures to reflect distinct industry sectors and to attract the right expertise to the most appropriate advisory groups.

An illustration of these consultation structures is provided in the following diagram.

National (cross sector) Training Advisory Committee

Sector Specific Advisory Committee

Training Package Reference Groups

National Training Advisory Committee

The National Training Advisory Committee is a cross-sector committee that is formed by the Chairs of the sector-specific Advisory Committees. This committee has a primary role in ensuring that the work of the Advisory Committees is communicated across the various industry sector groups.

A critical function for this group is the consideration of national vocational training issues that have the potential to affect the industry broadly and in particular between closely articulated sectors.

Sector-specific Advisory Committees

These committees meet twice a year to provide direction and guidance on the needs of the sector. Membership includes high-level personnel representing stakeholders from specific industry areas. Projects identified through these committees are recorded on the Training Package Continuous Improvement Plan and published monthly on the ASA website.

There are 10 of these committees providing advice to ASA.

Training Package Reference Groups

Training Package Reference Groups form small working groups whose focus is to work with ASA Training Package specialists to examine the technical detail and content of units of competency and align them to contemporary industry practice. These groups are also involved in informing the content for new qualifications and for alerting ASA where applied technical skills and knowledge requirements in industry are changing.

Training Package Reference Groups inform Advisory Committees, but their work is focused on the Training Package Continuous Improvement Plan and the provision of contemporary advice to ASA on the content of a qualification. This includes the technical specification of training standards and the requirements for assessment to meet the needs of the workplace.

RTO Engagement

There are a number of feedback and engagement strategies applied by ASA to ensure good engagement with RTOs. In particular ASA has established the National Automotive Registered Training Organisations Focus Group (NARF) and Automotive Registered Training Organisation Forums.

National Automotive Registered Training Organisations Focus Group

Automotive Registered Training Organisation Forums

National Automotive Registered Training Organisations Focus Group

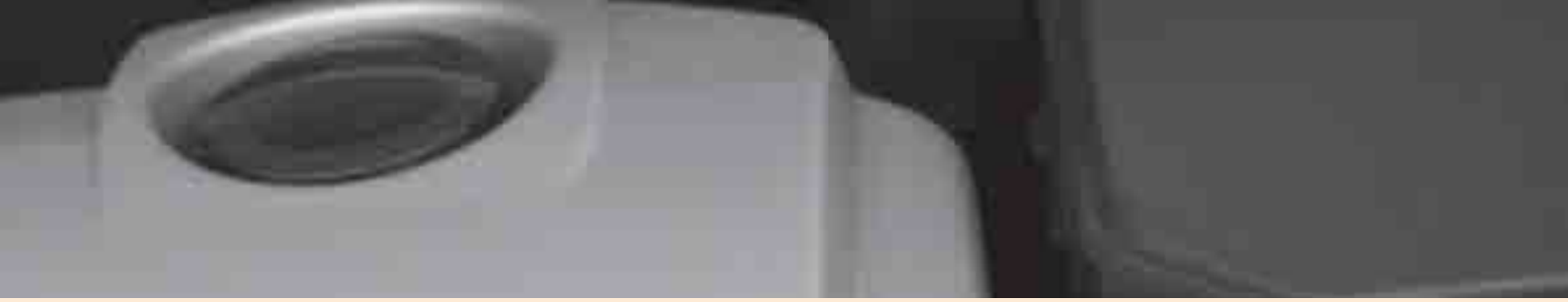
The National Registered Training Organisations Focus Group (NARF) has a primary role in ensuring that the development of Training Package companion volumes (implementation guides) are fit for purpose and communicated across the various automotive training providers.

The focus group plays an important role in providing advice for the development of implementation guides and for informing the development of ASA professional development programs to assist in the implementation of the automotive Training Packages.

Automotive Registered Training Organisation Forums

Automotive Registered Training Organisation (RTO) Forums are conducted in all states and territories on an annual basis. These forums provide an opportunity to seek feedback from RTOs on Training Package implementation issues.

These forums also provide an opportunity for ASA to clarify changes to Training Packages and to provide updates on VET policy, latest industry information, future Training Package work and other related ASA projects.



TRAINING PACKAGE UPTAKE

ASA is responsible for the development, maintenance and continuous improvement of two national Training Packages:

- AUM Automotive Manufacturing Training Package
- AUR Automotive Retail, Service and Repair Training Package.

These Training Packages provide a framework of qualifications aligned to occupations across the breadth of the automotive industry. The provision of trade and non-trade qualifications has been an underpinning feature of the industry since the development of the motor car and a culture of trade training has persisted throughout this time. Demand for automotive qualifications remains positive and total student enrolments within the two Training Packages are now at their highest level in the past four years.

It is expected that demand for training will continue to grow based on an expanding vehicle fleet and the emergence of specialisations across several automotive sectors. Tables 35 and 36 demonstrate the uptake of national qualifications between 2010 and 2013.

In addition to the use of national qualifications to support workforce development needs, it is also understood that a considerable amount of training is still undertaken via Skill Sets and state-accredited courses that do not appear on the national qualifications data count.

Many enterprises also provide specifically tailored and non-accredited training to their personnel and this is also not reflected in the course completion statistics. It could be conservatively estimated that industry undertakes at least 50% more non-accredited training than is reflected in the national course completion figures.

Table 35: National uptake of ASA Training Packages – student enrolments across all training years

	2010	2011	2012	2013
Total (combined AUR & AUM enrolments)	40,060	40,827	44,072	45,636

Source: NCVER Student Collection

Table 36: Commencements – combined AUR and AUM Training Packages

	2010	2011	2012	2013
Apprenticeships – school based	1,191	854	944	1,006
Other school-based training	2,029	1,765	2,221	2,577
Apprenticeships – non-school based	12,097	11,269	12,630	11,636
Other training – not apprenticeships	4,972	6,079	6,861	9,618
Domestic fee-for-service training	1,108	1,408	2,237	2,241
International fee-for-service training	458	489	409	328
TOTAL AUR & AUM commencements	21,855	21,864	25,302	27,406

Source: NCVER VOCSTATS database. Note: Apprentices includes trainees

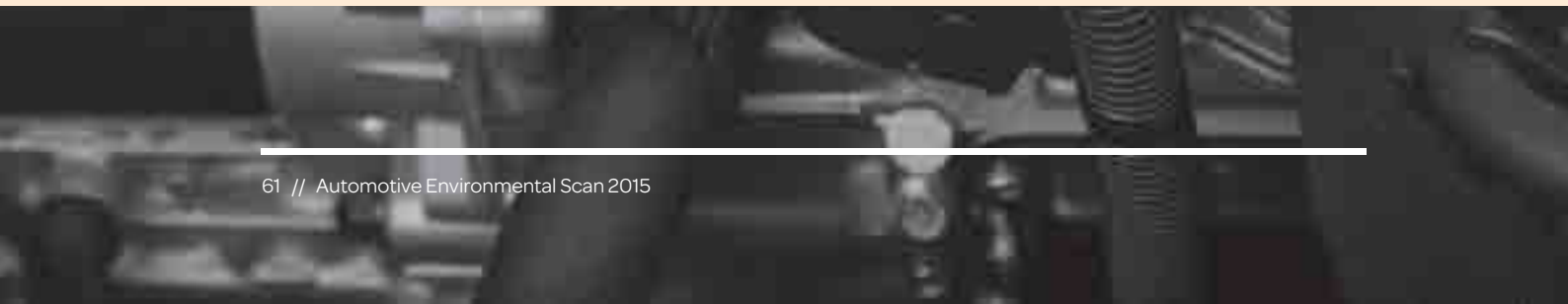
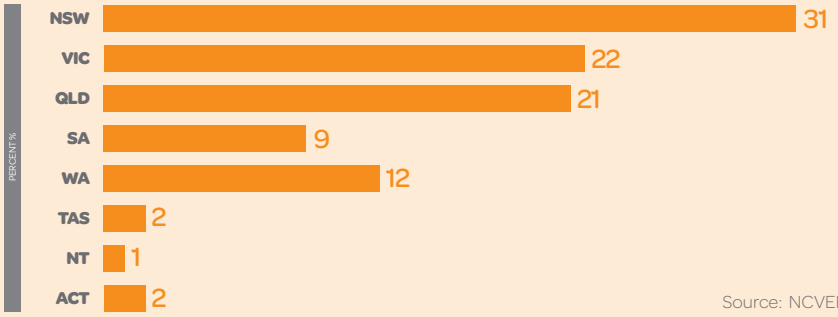


Figure 23: State/territory distribution of apprentices and trainees in training, combined AUR and AUM Training Packages, 2009-13



Source: NCVER VOCSTATS database

Distribution of training by state/territory

The distribution of apprentices and trainees undertaking automotive qualifications is broadly aligned to the population distribution by state. This reflects a dispersed network of automotive workplaces with greater density in higher population locations, as displayed in Figure 23.

It should be noted that the data provided in the tables in this section, which are derived from the National Centre for Vocational Education Research (NCVER), only reflect workers' participation in nationally accredited qualifications.

In addition to the use of national qualifications, a large amount of training occurs on a fee-for-service basis either as full qualifications or around specific units of competency required for specific job functions. The emergence of Skill Sets (specific units or clusters of units endorsed by industry) has led to an increase in upskilling, particularly where job roles have a regulated component. It is expected that this trend will continue as more Skill Sets are developed over time.

Skill Sets have only recently been coded in a similar manner to national qualifications and consequently accurate data on the use of Skill Sets is unavailable at this point in time. It is expected that this will be available for future E-Scans.

WORKFORCE DEVELOPMENT ISSUES

Barriers to training

Employers surveyed by Auto Skills Australia in the development of the 2015 E-Scan reported a range of barriers to their businesses providing training for employees. Cost and lost productivity due to time off-the-job were by far the two main barriers reported, as illustrated in Table 37.

These responses are reflective of the variable business and economic environment affecting many employers within the automotive industry. Many small to medium-sized enterprises, which make up the majority of the automotive industry, are simply reluctant to hire new apprentices and trainees due to economic uncertainty and reduced levels of consumer spending on vehicle servicing and maintenance.

Reports made to ASA during the E-Scan consultation processes indicate that many employers are managing by working longer hours with existing staff levels and resources in order to maintain productivity. Indications are that nervousness around business prospects and the global economic environment will continue to dampen the desire among many employers to hire new apprentices and trainees in the coming year.

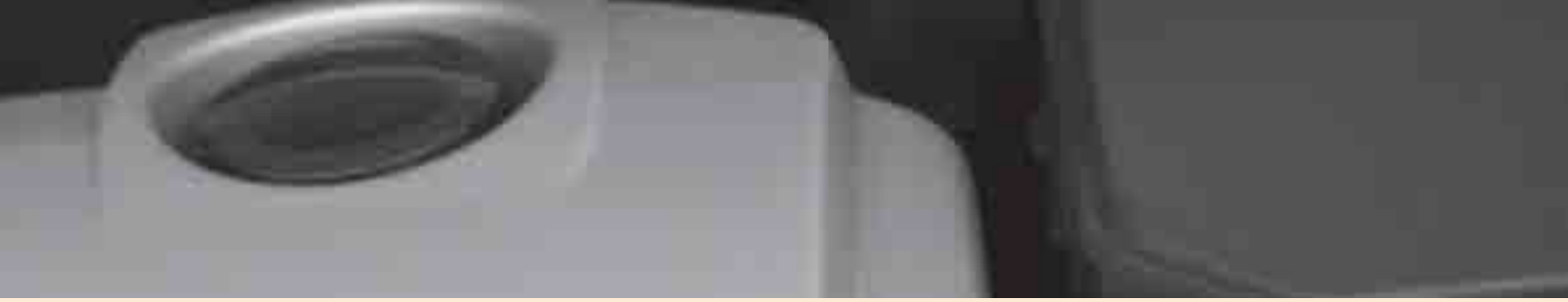


Table 37: Employer-reported barriers to providing training for employees

REASON FOR NOT PROVIDING TRAINING	% OF EMPLOYERS
Cost	48.2
Productivity lost due to time off-the-job	37.6
No barriers at all	28.3
Lack of employee interest	22.3
Lack of access or choice of training providers in the employer's location	20.0
Concern that employees will become more attractive to other employers	16.3
Lack of flexibility in course delivery	15.0
Administrative requirements too complex	10.5
Employees already have the required skills	10.3
The likelihood of employees not completing the training	9.0
Insufficient employee language, literacy or numeracy	5.0
Benefits of training cannot be applied to my business	3.0

Source: 2015 Automotive Environmental Scan Survey

Key labour issues

The results of a national survey conducted by ASA of 500 employers within the automotive industry indicate that the key labour issues affecting employers over the next 12 months will be:

- 'attraction of skilled workers' (56.2%)
- 'achieving productivity improvements with current staff level and skills base' (47.7%)
- 'adoption of higher skill levels across the workforce' (39.6%).

The least relevant labour issue reported by employers was 'managing an ageing workforce', where 24.6% rated it as an issue of significance. These results are displayed in Table 38.

Employers have indicated a preference in the current business environment for consolidation of their existing workforce. Attraction of labour still remains a critical issue for many employers, but only suitably qualified workers are sought.

Employers have also indicated that due to the slowing of the mining industry, movement across sectors of the automotive industry has changed direction and workers are looking to return to their former sectors of work.

Employers are often wary of returning workers, stating that they may be de-skilled following extended time in the mining industry. They often were performing mundane, repetitive work and now need extra training to return to work in sectors that are subject to rapid technological change. Therefore, the skilling of this labour force is a key challenge for the industry and for Australia more broadly.

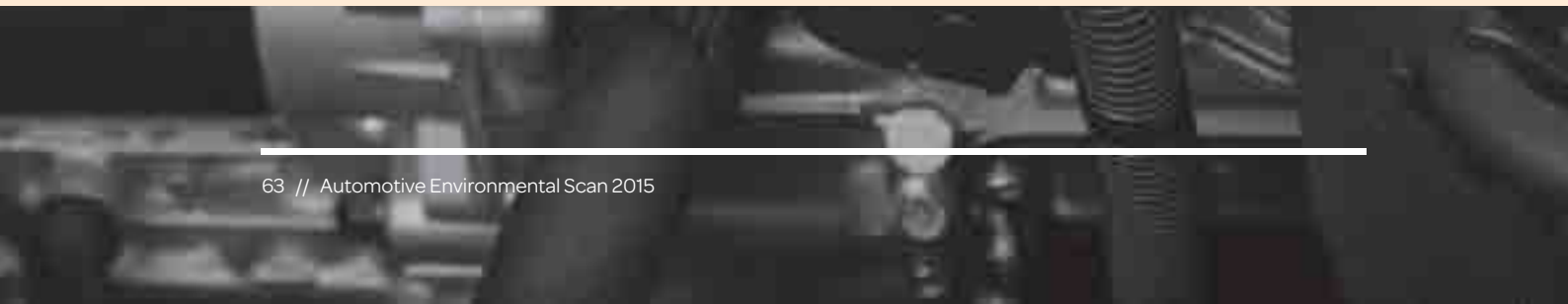


Table 38: Key labour issues facing employers

	EMPLOYER RATING (% RESPONSES)		
	SIGNIFICANT	MODERATE	MINOR
Attracting skilled workers	56.2	24.1	19.7
Achieving productivity improvements with current staff level and skills base	47.7	40.2	12.1
Adoption of higher skill levels across the workforce	35.8	44.3	19.9
Workforce retention and skills utilisation	29.2	39.5	31.4
Attracting apprentices	27.4	30.3	42.3
Managing an ageing workforce	24.6	34.5	40.9

Source: 2015 Automotive Environmental Scan Survey

AUTOMOTIVE MANUFACTURING TRAINING PACKAGE

The Automotive Manufacturing Training Package contains seven qualifications comprising 98 industry-specific units of competency aligned to occupations across two sectors:

- Vehicle Manufacturing Bus, Truck and Trailer
- Vehicle Manufacturing Passenger Vehicle

Forty-six registered training organisations (RTOs) have the Training Package on their Scope of Registration (qualifications that they have authority to deliver and assess).

Progress

During 2012-13, ASA reviewed and restructured all the units of competency in the Automotive Manufacturing Training Package to reflect the new standards for training packages. This work incorporated industry feedback highlighting the requirement for units of competency to more accurately reflect industry expectations and contemporary workplace practice.

This work resulted in the reduction of industry-specific units of competency from 103 to 98.

Uptake

The uptake of qualifications from this Training Package has started to decrease over the past year, as shown in Tables 39 and 40. This is due to the anticipated downsizing of Ford, Holden and Toyota car manufacturing operations in Australia. Until the industry reinvents itself, the future uptake of automotive manufacturing-related qualifications is unclear.

The data in Tables 39 and 40 is drawn from NCVER reports and only details results for nationally accredited training. It does not reflect state-accredited training or enterprise-specific, non-accredited training.

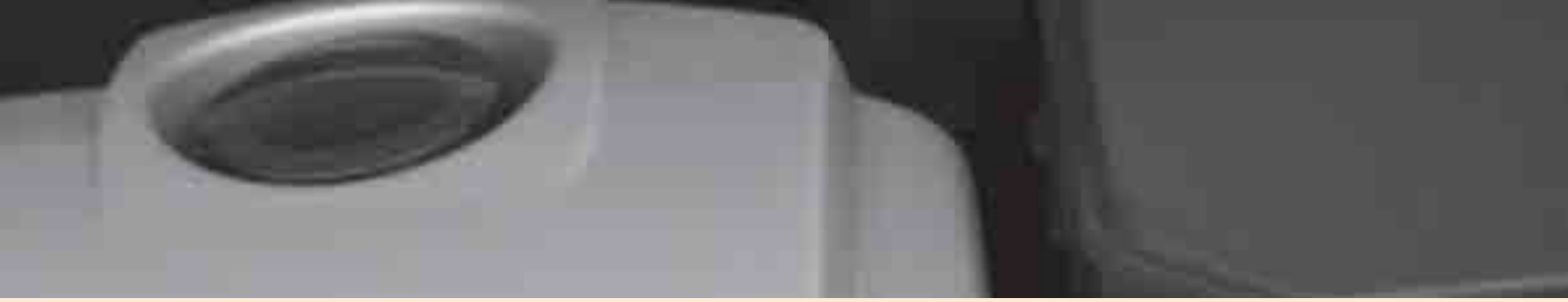


Table 39: AUM Training Package – student enrolments

	2010	2011	2012	2013
Enrolments	498	510	692	635

Source: NCVER Student Collection

Table 40: AUM Training Package – apprentice and trainee commencements, year ending 30 June

	2011	2012	2013	2014
Commencements	353	258	198	192

Source: National Apprentice and Trainee Collection, September 2013 estimates, unpublished

AUTOMOTIVE RETAIL, SERVICE AND REPAIR TRAINING PACKAGE

The Automotive Retail, Service and Repair (AUR) Training Package contains 57 qualifications comprising 646 industry-specific units of competency aligned to occupations across eight sectors. These are:

- Mechanical and Specialisation
- Mechanical Heavy Vehicle
- Vehicle Body
- Auto Electrical
- Outdoor Power and Equipment
- Marine
- Bicycles
- Sales, Parts, Administration and Management.

There are 242 RTOs that have the Training Package on their Scope of Registration.

Progress

During 2014, three qualifications were replaced by new qualifications and 35 new units of competency were developed. In addition, two qualifications were reviewed and restructured as part of an industry skills council (ISC) upgrade to the Training Package.

The new qualifications and units of competency were developed in the new standards for training packages while the ISC upgrade involved adding units to the elective banks of existing qualifications that remained written to the previous standards for training packages.

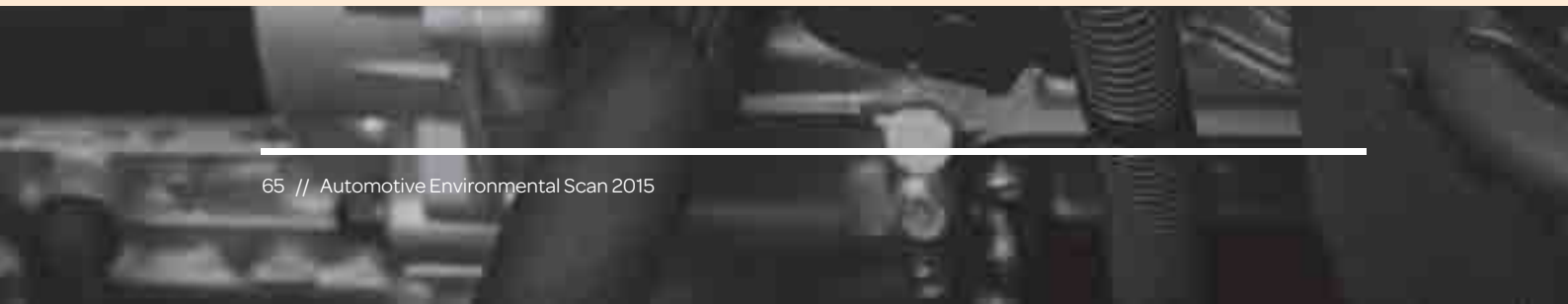


Table 41: AUR Training Package – student enrolments

	2010	2011	2012	2013
Enrolments	39,562	40,317	43,380	45,001

Source: NCVER Student Collection

Table 42: AUR Training Package – apprentice and trainee commencements, year ending 30 June

	2011	2012	2013	2014
Commencements	13,977	15,333	12,556	11,968

Source: National Apprentice and Trainee Collection, September 2013 estimates, unpublished

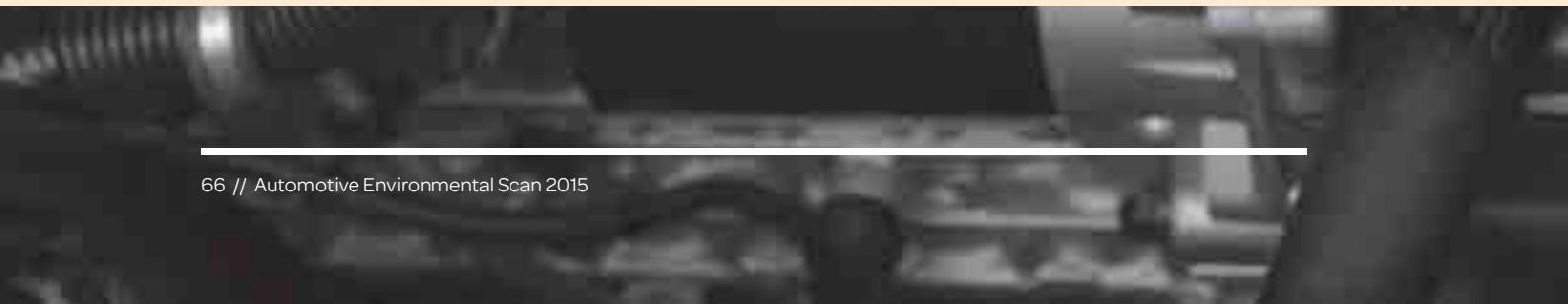
Uptake

The Automotive Retail, Service and Repair Training Package remains one of the most widely used within the VET sector. Student enrolments have remained consistently high over the past four years, as shown in Tables 41 and 42.

It is expected that use of this Training Package will grow as occupational outcomes and career pathways become more readily identified and as the vehicle fleet in Australia expands along with a growing population.

Continuous improvement

Throughout 2014-15 all units of competency in the AUR Training Package are being reviewed and streamlined to conform to the new standards for training packages. There are 646 units of competency that will be reviewed in this project. The expectation is that this work will result in clear outcomes and increased rigour in the units of competency.



Section 4
Future directions for endorsed components of training packages

The national vocational education and training (VET) system provides the framework through which industry and registered training organisations collectively deliver training and assess the competency of individuals. This system provides the structure for training and assessment pathways that enable the growth of organisations and individuals through vocational skills development.

Continuous learning in the Automotive industry

The rapid technological changes in vehicles, often driven by regulatory compliance and public demand, mean that technicians need to update their skills and knowledge on more than merely a regular basis. New technology often means new tools to work with, incurring extra cost that has just become part of being an automotive technician.

ASA analyses job roles in the industry and develops and maintains the qualifications that recognise those roles. The complex nature of the modern automotive industry may result in more sharply defined roles within the industry as workplaces carve out niches of expertise leading to a number of qualifications that recognise specialisations. The industry may already be moving away from the traditional all-rounder in metropolitan areas, but this is a necessary role in workplaces outside of cities. The ability of the technician who works on all the systems of a vehicle, and often across a range of vehicles types, to update their skills and knowledge will become more difficult as time goes by.

Educating the Training Provider, learner and industry
Training is sometimes seen by industry as the responsibility of the training providers with little or nothing to do with employers. In these highly competitive times, training providers are turning to employers to assist the facilitation of training and assessment models that are cost-effective while still providing good outcomes.

This is approach is evident in thin markets where there are small numbers of people to be trained – often in areas that are vital to the rest of the industry – and financial sustainability of this training is difficult.

Close relationships between employers and training providers seem to be the key to successful outcomes in these instances.

New directions for the Automotive Manufacturing sector
Australia's automotive manufacturing industry is undergoing significant change. As we see passenger vehicle manufacture in Australia wind down we can expect changes to both the structure and form of the this sector of the industry.

Component manufacturers face ongoing adjustment pressure and rationalisation and at this point there is no clear direction for the continuous improvement of the automotive manufacturing training package. As the industry adjusts and changes to roles become well-defined, there is the expectation that the training package will undergo extensive modification.

Working towards national consistency
There are a number of job roles that the industry would like to see as consistent across state and territory jurisdictions. Working with stakeholders in areas such as vehicle roadworthiness will identify the qualifications, skill sets and/or units of competency that would form the basis of the necessary training and assessment recognised by all jurisdictions.

Automotive trainers
Attracting suitable people into the roles of automotive trainers and assessors is seen as vital to the growth of the industry. It would be useful to identify and chart pathways through the industry that demonstrate the broad scope of possibilities for individuals to enter into these roles.

Bringing it all together
Rapid technological change, strengthened industry/training provider partnerships and identifiable pathways to bring more industry people in the training space are challenges facing the industry.

Table 43: Summary of national VET regulatory reforms that affect the automotive industry

VOCATIONAL EDUCATION AND TRAINING REGULATORY REFORM UPDATE		
REFORM OBJECTIVE/PROGRESS	EFFECT OF REGULATORY REFORM ON ASA QUALIFICATIONS	INFORMATION
New standards for training packages The Standing Council on Tertiary Education, Skills and Employment (SCOTESE) endorsed new standards for training packages, developed by the National Skills Standards Council (NSSC), on 16 November 2012. (Note that the NSSC referred to in this document has been dissolved and its ongoing functions will be delegated to the Australian Industry and Skills Committee, which is to be established.) The purpose of the new standards is to ensure Training Packages are of high quality and meet the workforce development needs of industry, enterprises and individuals. The standards apply to the design and development of Training Packages by Industry Skills Councils (ISCs). The standards replace the Training Package Development Handbook (which includes the previous training package development and endorsement process). The new standards implement the agreed recommendations from the joint COAG/NQC VET Products for the 21st Century Report, endorsed by the Ministerial Council for Tertiary Education and Employment. Under the new standards there will be a strengthened quality assurance process that will include all components of a Training Package put forward to the endorsing body for endorsement. The national register of information on training packages, qualifications, courses, units of competency and registered training organisations – training.gov.au – will publish streamlined training packages upon their endorsement.	ASA has reviewed and restructured the AUM Training Package to reflect the new standards. The AUR Training Package is being reviewed to incorporate the new standards. ASA seeks to continue a positive engagement with the endorsing body and in particular with the passage of automotive Training Packages through the new standards. By 31 December 2015, all Training Packages will meet the new standards.	More information: http://www.industry.gov.au/skills/TrainingPackages/Pages/default.aspx

VOCATIONAL EDUCATION AND TRAINING REGULATORY REFORM UPDATE		
REFORM OBJECTIVE/PROGRESS	EFFECT OF REGULATORY REFORM ON ASA QUALIFICATIONS	INFORMATION
Improving VET system information SCOTESE agreed on 7 June 2013 to the implementation arrangements for the unique student identifier (USI) and strengthening the national VET data collection through enhanced reporting of training activity. These two initiatives are part of a suite of reforms being pursued by federal, state and territory governments to support better information about VET and underpin improvements to quality and access to training across the VET sector, to the benefit of all Australians. The initiatives are designed so employers and individuals can make more informed choices about training options, individuals can get records of training they undertake regardless of where it occurred, industry can know the skills being developed in the training sector, and governments can develop more targeted policies and better direct funding to training priorities.	New RTOs are required to comply with the Standards from 1 January 2015 and existing RTOs from 1 April 2015.	If you require any further information about the standards for RTOs, go to: http://www.asqa.gov.au/vet-registration/comply-with-your-obligations/total-vet-activity-reporting.html http://www.usi.gov.au/About/Pages/default.aspx
New standards for RTOs 2015 New national standards for RTOs and regulators were released in 2014. The Standards for Registered Training Organisations 2015 will be implemented from 1 January 2015 for prospective RTOs and from 1 April 2015 for existing RTOs. ASQA can delegate regulatory responsibility to high-performing registered training organisations (RTOs) to manage their own scope of registration. Delegates will no longer have to apply to ASQA each time they add or withdraw a new qualification, unit of competency or accredited course. From 1 July 2014, when a new or revised training package is released, ASQA will identify all qualifications and units of competency that have been endorsed as being 'equivalent' to a current training package product. ASQA will automatically update a training provider's scope of registration with the new, equivalent training product. Financial viability assessments will cease as a requirement for re-registering existing RTOs	ASA is carefully considering the policy requirements around equivalency of qualifications and units for the new training package components being produced for the new standards for training packages.	If you require any further information about the standards for RTOs, go to: http://www.asqa.gov.au/

VOCATIONAL EDUCATION AND TRAINING REGULATORY REFORM UPDATE		
REFORM OBJECTIVE/PROGRESS	EFFECT OF REGULATORY REFORM ON ASA QUALIFICATIONS	INFORMATION
Vocational education and training reform In November 2013, the Department of Industry established a VET Reform Taskforce. The purpose of the taskforce is to work with state and territory governments, RTOs, industry groups, employers and other stakeholders to build a better VET system, led by industry. Formal consultations, face-to-face and via webinar, are underway. There are several other ways to have a say about VET reform.		If you require any further information about the VET reform, go to: http://www.vetreform.industry.gov.au/

Appendices

APPENDIX A

REPORT ON PREVIOUS CONTINUOUS IMPROVEMENT ACTIVITY

Automotive Training Packages

AUM AUTOMOTIVE MANUFACTURING TRAINING PACKAGE				
BRIEF SUMMARY OF CHANGES	INDUSTRY IMPERATIVES/ RATIONALE FOR CHANGE	DATE SUBMITTED TO ENDORSING BODY SECRETARIAT	DATE ENDORSED BY ENDORSING BODY OR ISC UPGRADE	DATE MADE PUBLIC THROUGH TGA
Work on items within the AUM Continuous Improvement Plan that may affect the structure of qualifications will begin in 2015 as the industry comes to terms with the changes in automotive manufacturing.	N/A	N/A	N/A	N/A

AUR AUTOMOTIVE RETAIL, SERVICE AND REPAIR TRAINING PACKAGE				
BRIEF SUMMARY OF CHANGES	INDUSTRY IMPERATIVES/ RATIONALE FOR CHANGE	DATE SUBMITTED TO ENDORSING BODY SECRETARIAT	DATE ENDORSED BY ENDORSING BODY OR ISC UPGRADE	DATE MADE PUBLIC THROUGH TGA
Revision of the Certificate III in Marine Mechanical Technology	Industry requested a review of the structure of the qualification to allow the choice of different engine and transmission repair units in negotiated training plans.	8 December 2014	8 December 2014	16 January 2015

AUR AUTOMOTIVE RETAIL, SERVICE AND REPAIR TRAINING PACKAGE				
BRIEF SUMMARY OF CHANGES	INDUSTRY IMPERATIVES/ RATIONALE FOR CHANGE	DATE SUBMITTED TO ENDORSING BODY SECRETARIAT	DATE ENDORSED BY ENDORSING BODY OR ISC UPGRADE	DATE MADE PUBLIC THROUGH TGA
Revision of the Certificate III in Heavy Commercial Vehicle Mechanical Technology	Industry requested a review of the structure of the qualification to allow the choice of different transmission repair units in negotiated training plans.	8 December 2014	8 December 2014	16 January 2015
Revision of the Certificate IV in Vehicle Loss Assessing	The qualification was reviewed and rewritten to the new standards for Training Packages in accordance with the Department of Industry requirements.	8 December 2014	8 December 2014	16 January 2015
One new skill set for Percussive Drill Maintenance and Advanced Systems Diagnosis	Industry had identified a gap in the supply of trained maintenance staff for the underground mining industry.	N/A	N/A	9 February 2015
Eleven new Loss Assessing-specific units and their assessment requirements were written to the new standards for Training Packages	The units were reviewed and re-written to the new standards for Training Packages in accordance with the Department of Industry requirements.	8 December 2014	8 December 2014	16 January 2015

AUR12 AUTOMOTIVE RETAIL, SERVICE AND REPAIR TRAINING PACKAGE				
BRIEF SUMMARY OF CHANGES	INDUSTRY IMPERATIVES/ RATIONALE FOR CHANGE	DATE SUBMITTED TO ENDORSING BODY SECRETARIAT	DATE ENDORSED BY ENDORSING BODY OR ISC UPGRADE	DATE MADE PUBLIC THROUGH TGA
ISC upgrade of Certificate II in Automotive Vocational Preparation – twenty new units written and added to the elective bank to augment the qualification	Request from end-users in schools and RTOs in some jurisdictions to increase the volume within the qualification.	N/A	8 December 2014	16 January 2015
ISC upgrade of Certificate II in Automotive Steering and Suspension – four units of competency added to the elective bank to augment the qualification.	Request from industry to add wheel alignment and steering & suspension inspection units to the qualification.	N/A	8 December 2014	16 January 2015

APPENDIX B

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7. Source: Bicycle Industries Australia
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9. Source: https://training.gov.au/
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METHODOLOGY

Actions taken to develop the 2015 Automotive Environmental Scan

Auto Skills Australia Ltd used a range of strategies and processes to develop the 2015 Automotive Environmental Scan. The aim of the E-scan was to integrate a contemporary statistical analysis of the automotive industry, with maximum engagement and qualitative contribution from stakeholders. Intelligence gathering was undertaken from July to December 2014.

The processes used to inform the E-scan included:

- Conducting a series of forums and focus group discussions with industry stakeholders in each state. These stakeholders included both national and state industry associations and peak bodies; state industry advisory training bodies; registered training organisations and state training authorities. Valuable intelligence was gained from these forums on conditions within the industry in each state. The forums were held during September and October 2014.
- The development of a national industry employer survey (the 2015 Automotive Environmental Scan Survey), designed to capture detailed quantitative and qualitative labour market information in each state. The survey was conducted during October 2014 and is discussed in more detail below.
- Discussions during October and November 2014 with representatives of motor vehicle manufacturers on the state of the automotive manufacturing industry.
- Regular consultations with ASA training package specialists concerning developments in national automotive training qualifications.
- Consultations with ASA industry sector advisory committees and ASA Board members concerning intelligence about various automotive sectors.
- Use of the latest ABS and NCVER data and conducting time series modelling of estimates.
- Use of automotive research publications, industry reports and on-going monitoring of media reports.

2015 AUTOMOTIVE ENVIRONMENTAL SCAN SURVEY

The 2015 Automotive Environmental Scan Survey was designed by ASA to capture crucial quantitative and qualitative information on the state of the automotive labour market and other important issues in each state. The survey data was instrumental in verifying or validating the qualitative and anecdotal evidence presented by many stakeholders during forum group discussions.

Given that the automotive labour market was the prime focus, the survey was disseminated to automotive businesses in each state. The survey included a cross section of businesses in each state within each relevant ANZSIC code and industry activity as listed in Table 1.

Sample Size and Level of Accuracy

A sample size of 500 automotive businesses was selected within the survey. Given that the national population of automotive businesses is approximately 64,772 (ABS: Counts of Australian Businesses Cat. No. 8165.0), a sample size of 500 businesses allowed for a 95% confidence level with the data, or a 4.4% margin of error according to the formula:

$$\text{MARGIN OF ERROR} = 1/\sqrt{\text{sample size}} = \frac{1}{\sqrt{n}}$$

Note: 'n' is always used to stand for sample size (or number)

The margin of error can be described as the amount by which the percentage or proportion obtained from the sample, a sample statistic, will differ from the population percentage or proportion.

Therefore, with a sample size of 500, the margin of error is:

$= 1/\sqrt{500}$

$= 1/22.36$

$= 0.044$

$= (\pm)\ 4.4\%$

Therefore if 50% of business respondents sampled claim to be affected by shortages of skilled labour, one can be 95% confident that the true value for the whole population falls between 50 ± 4.4, that is, in a range from 45.6% to 54.4%.

APPENDIX C

OCCUPATIONS AND QUALIFICATIONS IN DEMAND TABLE

NOTE: The information contained in the following table is presented on the basis of industry sector and occupation, according to the newly restructured qualifications and job roles within the Automotive Retail, Service and Repair Training Package (AUR) and the Automotive Manufacturing Training Package (AUM).

In many cases, the ANZSCO codes and occupations used by the Australian Bureau of Statistics do not accurately represent or match the revised job roles and qualifications within AUR and AUM. As such, a best fit of ANZSCO codes to AUR and AUM qualifications and occupations has been presented in the table below. Where there are no appropriate ANZSCO codes available, none are recorded.

MECHANICAL AND SPECIALISATION SECTOR			
ANZSCO CODE AND OCCUPATION	INDUSTRY SECTOR AND OCCUPATION TITLES	TRAINING PACKAGE QUALIFICATION	JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)
321211 Motor Mechanic (General)	Automotive Air Conditioning Serviceperson; Automotive Specialist – Air conditioning.	AUR20212 Certificate II in Automotive Air Conditioning Technology	Mild shortages were identified for this occupation across some states.
899916 Mechanic's Assistant	Automotive Vehicle Serviceperson; Automotive Serviceperson; Automotive Underbody Serviceperson.	AUR20512 Certificate II in Automotive Servicing Technology	No shortages reported for this occupation.
321211 Motor Mechanic (General)	Automotive Underbody Serviceperson; Automotive Vehicle Serviceperson.	AUR21212 Certificate II in Automotive Underbody Technology	No shortages reported for this occupation.
321211 Motor Mechanic (General)	Automotive Braking Systems Serviceperson; Automotive Braking Systems Specialist.	AUR21312 Certificate II in Automotive Braking Systems Technology	No shortages reported for this occupation.
899414 Radiator Repairer	Automotive Radiator Repair Serviceperson; Automotive Radiator Repair Specialist.	AUR21412 Certificate II in Automotive Cooling System Technology	Mild shortages were identified for this occupation in some states.

MECHANICAL AND SPECIALISATION SECTOR CONTINUED			
ANZSCO CODE AND OCCUPATION	**INDUSTRY SECTOR AND OCCUPATION TITLES**	**TRAINING PACKAGE QUALIFICATION**	**JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)**
323214 Metal Machinist (First Class)	Automotive Engine Cylinder Head Reconditioner; Automotive Engine Reconditioner Cylinder Head Specialist; Automotive Engine Reconditioner.	AUR21512 Certificate II in Automotive Cylinder Head Reconditioning	Mild shortages were identified for this occupation, particularly in QLD and SA.
321211 Motor Mechanic (General)	Automotive Driveline Serviceperson; Automotive Driveline and Transmission Specialist.	AUR21612 Certificate II in Automotive Driveline System Technology	No shortages reported for this occupation.
899413 Exhaust and Muffler Repairer	Automotive Exhaust Fitter and Repairer; Automotive Exhaust Fitting Specialist.	AUR21712 Certificate II in Automotive Exhaust System Technology	No shortages reported for this occupation.
321211 Motor Mechanic (General)	Automotive Steering and Suspension Serviceperson; Automotive Steering and Suspension Specialist.	AUR21812 Certificate II in Automotive Steering and Suspension System Technology	No shortages reported for this occupation.
899415 Tyre Fitter	Automotive Tyre Fitter-Light Vehicles; Automotive Tyre Fitter-Heavy Vehicles; Automotive Tyre Fitter-Agricultural Equipment.	AUR21913 Certificate II in Automotive Tyre Servicing Technology	A national shortage of 190 tyre fitters is estimated by ASA, with shortages prevailing in most states according to results from the 2015 Automotive Environmental Scan Survey.
899415 Tyre Fitter	Senior Tyre Fitter; Tyre Fitter Supervisor; Tyre Fitter Leading Hand.	AUR32613 Certificate III in Automotive Tyre Management	See above.

MECHANICAL AND SPECIALISATION SECTOR CONTINUED			
ANZSCO CODE AND OCCUPATION	**INDUSTRY SECTOR AND OCCUPATION TITLES**	**TRAINING PACKAGE QUALIFICATION**	**JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)**
321211 Motor Mechanic (General)	Automotive Light Vehicle- Mechanical/ Repair Technician; Light Vehicle Mechanical Technician.	AUR30612 Certificate III in Light Vehicle Mechanical Technology	Automotive light vehicle mechanics represent the most critical skill shortage within the automotive industry. ASA has estimated a current shortage of 5,716 light vehicle mechanics nationally, which is prevalent across all states and territories including regional and remote areas.
321211 Motor Mechanic (General)	Automotive Manual Transmission Drivetrain Technician; Automotive Automatic Transmission Drivetrain Technician; Drivetrain Technician.	AUR31612 Certificate III in Automotive Drivetrain Technology	Mild shortages were identified for this occupation in some states.
321211 Motor Mechanic (General)	Automotive Alternative Fuel Technician; Automotive Light Vehicle Repair Technician; Automotive Heavy Vehicle Repair Technician.	AUR32012 Certificate III in Automotive Alternative Fuel Technology	Mechanical diagnostics skills are widely sought after by automotive businesses and constitute and a critical skill shortage nationally.
321213 Motorcycle Mechanic	Automotive Motorcycle Repair Technician.	AUR30812 Certificate III in Motorcycle Mechanical Technology	ASA has identified a national shortage of 150 motorcycle mechanics, which are required in most states.
321211 Motor Mechanic (General)	Automotive Light Vehicle Underbody Repair Technician.	AUR32512 Certificate III in Automotive Underbody Technology	Low level shortages were recorded for this occupation across some states..
321211 Motor Mechanic (General)	Automotive Lead/ Master Technician; Automotive Technical Advisor.	AUR40212 Certificate IV in Automotive Mechanical Diagnosis	Advanced diagnostic skills are highly sought after by automotive businesses in response to increasingly complex vehicle systems/technologies.

MECHANICAL AND SPECIALISATION SECTOR CONTINUED			
ANZSCO CODE AND OCCUPATION	**INDUSTRY SECTOR AND OCCUPATION TITLES**	**TRAINING PACKAGE QUALIFICATION**	**JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)**
321211 Motor Mechanic (General)	Automotive Overhauler.	AUR40812 Certificate IV in Automotive Mechanical Overhauling	No shortages reported for this occupation.
	Automotive Technical Advisor	AUR40212 Certificate IV in Automotive Mechanical Diagnosis	Some shortages in QLD.
321211 Motor Mechanic (General)	Performance Vehicle Technician; Automotive Performance Enhancement Master Technician.	AUR40412 Certificate IV in Automotive Performance Enhancement	No shortages for this occupation.
321211 Motor Mechanic (General)	Advanced Diagnostic Technician; Automotive System Designer.	AUR50212 Diploma of Automotive Technology	Some shortages reported. Advanced diagnostic skills are highly sought after by automotive businesses in response to increasingly complex vehicle systems/ technologies

MECHANICAL HEAVY VEHICLE SECTOR			
ANZSCO CODE AND OCCUPATION	**INDUSTRY SECTOR AND OCCUPATION TITLES**	**TRAINING PACKAGE QUALIFICATION**	**JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)**
321212 Diesel Motor Mechanic	Agricultural Mechanical Technician.	AUR30412 Certificate III in Agricultural Mechanical Technology	Some shortages have been reported within this occupation, particularly in SA.
321212 Diesel Motor Mechanic	Heavy Commercial Vehicle Technician; Heavy Vehicle Mechanic.	AUR31114 Certificate III in Heavy Commercial Vehicle Mechanical Technology	The results of the 2015 Automotive Environmental Survey indicate a major national shortage of 1,567 heavy vehicle mechanics, with shortages occurring in every state and territory. Heavy vehicle mechanics are particularly sought after by the mining and resource industries and many are attracted towards these industries, thus creating shortages for the automotive industry.

MECHANICAL HEAVY VEHICLE SECTOR (CONTINUED)			
ANZSCO CODE AND OCCUPATION	**INDUSTRY SECTOR AND OCCUPATION TITLES**	**TRAINING PACKAGE QUALIFICATION**	**JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)**
323211 Fitter (General)	Mobile Plant Technician; Heavy Vehicle Mobile Equipment Mechanic.	AUR31212 Certificate III in Mobile Plant Technology	A national shortage of 216 mobile plant technicians has been estimated by ASA. There is an increased demand for this qualification due to the diagnostics components within the qualification.
323211 Fitter (General)	Diesel Fitter; Diesel Fitting Mechanic.	AUR31212 Certificate III in Mobile Plant Technology	Diesel fitters were identified as a skill shortage, particularly in regional and remote areas of QLD, according to advice from industry stakeholders.
323214 Metal Machinist (First Class)	Automotive Engine Reconditioner.	AUR31312 Certificate III in Automotive Engine Reconditioning	Mild shortages have been identified for this qualification. The lack of sufficient training providers delivering training within this specialised field is seen by stakeholders as a key factor for these shortages.
321212 Diesel Motor Mechanic	Automotive Heavy Vehicle Diesel Fuel Technician; Diesel Fuel Specialist.	AUR31412 Certificate III in Automotive Diesel Fuel Technology	Low level shortages were reported within this specialised occupation.
321212 Diesel Motor Mechanic	Diesel Engine Technician.	AUR31512 Certificate III in Automotive Diesel Engine Technology	The results of the 2015 Automotive Environmental Scan Survey indicate major shortages within this occupation/specialisation across all states and territories.
321211 Motor Mechanic (General)	Automotive Automatic Transmission Technician; Automotive Manual Transmission Drivetrain Technician; Drivetrain Technician.	AUR31612 Certificate III in Automotive Drivetrain Technology	Some shortages have been identified within this occupation, particularly in SA, based on stakeholder reports and the results of the 2015 Automotive Environmental Scan Survey.
721311 Forklift Driver	Automotive Forklift Repair Technician; Automotive Forklift Mechanic.	AUR31712 Certificate III in Forklift Technology	Limited shortages for this occupation have been reported by stakeholders.

MECHANICAL HEAVY VEHICLE SECTOR (CONTINUED)			
ANZSCO CODE AND OCCUPATION	INDUSTRY SECTOR AND OCCUPATION TITLES	TRAINING PACKAGE QUALIFICATION	JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)
	Heavy Commercial Trailer Technician.	AUR31812 Certificate III in Heavy Commercial Trailer Technology	Mild shortages have been recorded for this occupation in some states.
	Elevating Work Platform Technician.	AUR31912 Certificate III in Elevating Work Platform Technology	No shortages reported for this occupation.
321211 Motor Mechanic (General)	Heavy Vehicle Automotive Alternative Fuel Technician.	AUR32012 Certificate III in Automotive Alternative Fuel Technology	Mild shortages have been recorded for this occupation in some states.

VEHICLE BODY REPAIR SECTOR			
ANZSCO CODE AND OCCUPATION	INDUSTRY SECTOR AND OCCUPATION TITLES	TRAINING PACKAGE QUALIFICATION	JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)
324111 Panelbeater	Vehicle Body Repair Assistant; Vehicle Paint-Less Dent Repair Assistant.	AUR20912 Certificate II in Automotive Body Repair Technology	No shortages reported for this occupation.
324311 Vehicle Painter	Vehicle Painter Assistant.	AUR20912 Certificate II in Automotive Body Repair Technology	No shortages reported for this occupation.
324212 Vehicle Trimmer	Vehicle Trimming Assistant.	AUR20912 Certificate II in Automotive Body Repair Technology	No shortages reported for this occupation.
899412 Autoglazier	Vehicle Glazing Assistant.	AUR20912 Certificate II in Automotive Body Repair Technology	No shortages reported for this occupation.
621911 Materials Recycler	Vehicle Dismantler.	AUR20912 Certificate II in Automotive Body Repair Technology	No shortages reported for this occupation.
811111 Car Detailer	Vehicle Detailer.	AUR20912 Certificate II in Automotive Body Repair Technology	Limited shortages were reported for this occupation.
324111 Panelbeater	Vehicle Body Assembler.	AUR20912 Certificate II in Automotive Body Repair Technology	No shortages reported for this occupation.

VEHICLE BODY REPAIR SECTOR (CONTINUED)			
ANZSCO CODE AND OCCUPATION	**INDUSTRY SECTOR AND OCCUPATION TITLES**	**TRAINING PACKAGE QUALIFICATION**	**JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)**
899412 Autoglazier	Vehicle Window Tinter; Vehicle Tinter.	AUR20912 Certificate II in Automotive Body Repair Technology	No shortages reported for this occupation.
324111 Panelbeater	Vehicle Body Repair Technician; Vehicle Body Restoration Technician; Heavy Vehicle Body and Chassis Repair Technician; Panelbeater.	AUR32112 Certificate III in Automotive Body Repair Technology	Results from the 2015 Automotive Environmental Scan Survey indicate a national shortage of 2,700 body repair technicians. These shortages are present in every state/ territory except Tasmania.
899412 Autoglazier	Automotive Glazing Technician; Vehicle Glazier; Windscreen Repair Technician.	AUR32212 Certificate III in Automotive Glazing Technology	No shortages reported for this occupation.
323212 Vehicle Trimmer	Motor Trimming Technician; Vehicle Trimming Technician; Marine Trimming Technician.	AUR32312 Certificate III in Automotive and Marine Trimming Technology	Some shortages of vehicle trimmers have been identified, particularly in NSW and ACT.
324311 Vehicle Painter	Vehicle Refinishing Technician; Vehicle Spray Painter; Vehicle Refinishing Technician- Heavy Vehicle and Industry.	AUR32412 Certificate III in Automotive Refinishing Technology	ASA has forecast a national shortage of 1,900 vehicle refinishing technicians for 2014/15. Shortages within this occupation are present in all states and territories except Tasmania.

VEHICLE BODY REPAIR SECTOR (CONTINUED)			
ANZSCO CODE AND OCCUPATION	**INDUSTRY SECTOR AND OCCUPATION TITLES**	**TRAINING PACKAGE QUALIFICATION**	**JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)**
512111 Office Manager	Automotive Workshop Manager; Automotive Master Technician and Workplace Supervisor; Workplace Loss Assessor Advisor; Estimator; Workplace Technical Advisor Panel and Paint; Group Team Leader; Customer Service.	AUR40712 Certificate IV in Automotive Body Repair Technology	Limited shortages have been reported for these occupations across states.
599612 Insurance Loss Adjuster	Vehicle Loss Assessor – Light Vehicle; Heavy Vehicle; Commercial Vehicle; Agricultural and Plant Equipment; Recreational Vehicle; Motorcycle.	AUR40512 Certificate IV in Vehicle Loss Assessing	No shortages reported for these occupations.

AUTOMOTIVE ELECTRICAL SECTOR			
ANZSCO CODE AND OCCUPATION	**INDUSTRY SECTOR AND OCCUPATION TITLES**	**TRAINING PACKAGE QUALIFICATION**	**JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)**
899411 Motor Vehicle Part and Accessories Fitter (General)	Automotive Electrical Component Installer; Electrical Accessory Fitter.	AUR20412 Certificate II in Automotive Electrical Technology	No shortages reported for this occupation.
321211 Motor Mechanic (General)	Automotive Air-Conditioning Serviceperson.	AUR20412 Certificate II in Automotive Electrical Technology AUR20212 Certificate II in Automotive Air Conditioning Technology	Mild shortages were reported for this occupation across some states.

AUTOMOTIVE ELECTRICAL SECTOR (CONTINUED)			
ANZSCO CODE AND OCCUPATION	INDUSTRY SECTOR AND OCCUPATION TITLES	TRAINING PACKAGE QUALIFICATION	JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)
899411 Motor Vehicle Part and Accessories Fitter (General)	Automotive Electrical Trainee / Assistant.	AUR20412 Certificate II in Automotive Electrical Technology	No shortages reported for this occupation.
321111 Automotive Electrician	Automotive Electrical Technician; Automotive Electrical Diagnostic Technician; Automotive Electrician.	AUR30312 Certificate III in Automotive Electrical Technology	A national shortage of 623 automotive electricians is forecast by ASA with demand for this occupation present in all states and territories.
512111 Office Manager	Automotive Electrical Workshop Manager / Service Manager; Automotive Electrical Master Diagnostic Technician.	AUR40612 Certificate IV in Automotive Electrical Technology	Limited shortages reported for this occupation.
321111 Automotive Electrician	Automotive Electrical Workshop Technical Service Adviser.	AUR40612 Certificate IV in Automotive Electrical Technology	Limited shortages reported for this occupation.
321111 Automotive Electrician	Automotive Electrical Master Technician.	AUR40612 Certificate IV in Automotive Electrical Technology	Limited shortages reported for this occupation.

OUTDOOR POWER EQUIPMENT SECTOR			
ANZSCO CODE AND OCCUPATION	INDUSTRY SECTOR AND OCCUPATION TITLES	TRAINING PACKAGE QUALIFICATION	JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)
321214 Small Engine Mechanic	Outdoor Power Equipment Serviceperson; Outdoor Power Equipment Service Technician.	AUR20812 Certificate II in Outdoor Power Equipment Technology	No shortages reported for this occupation.
321214 Small Engine Mechanic	Outdoor Power Equipment Repair Technician; Outdoor Power Equipment Technician.	AUR30713 Certificate III in Outdoor Power Equipment Technology	Mild shortages were reported for this occupation within the 2015 Automotive Environmental Scan Survey.

MARINE SECTOR			
ANZSCO CODE AND OCCUPATION	INDUSTRY SECTOR AND OCCUPATION TITLES	TRAINING PACKAGE QUALIFICATION	JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)
321214 Small Engine Mechanic	Marine Serviceperson; Marine Service Technician.	AUR20612 Certificate II in Marine Mechanical Technology	No shortages reported for this occupation.
321214 Small Engine Mechanic	Marine Mechanical Technician; Marine Technician.	AUR30512 Certificate III in Marine Mechanical Technology	A national shortage of approximately 150 marine mechanical technicians is forecast by ASA, with shortages being most prevalent in NSW and WA.

BICYCLE SECTOR			
ANZSCO CODE AND OCCUPATION	INDUSTRY SECTOR AND OCCUPATION TITLES	TRAINING PACKAGE QUALIFICATION	JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)
899911 Bicycle Mechanic	Bicycle Assembler; Bicycle Serviceperson; Assistant Bicycle Mechanic; Bicycle Service Technician; Bicycle Sales Assistant.	AUR20312 Certificate II in Bicycle Mechanical Technology	Bicycle repair technicians/mechanics are identified as a strong skill shortage nationally according to stakeholder reports. Using results from the 2015 Automotive Environmental Scan Survey, ASA has estimated a national shortage of 553 bicycle mechanics. Shortages are present in all states and territories except TAS and NT.
899911 Bicycle Mechanic	Bicycle Repair Technician; Bicycle Mechanic.	AUR30212 Certificate III in Bicycle Workshop Operations	See above.

AUTOMOTIVE ADMINISTRATIONS AND SALES SECTOR			
ANZSCO CODE AND OCCUPATION	INDUSTRY SECTOR AND OCCUPATION TITLES	TRAINING PACKAGE QUALIFICATION	JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)
599 Miscellaneous Clerical and Administrative Workers	Clerical/Office Assistant; Service Department Receptionist; On-line Receptionist; Data Entry Assistant.	AUR20112 Certificate II in Automotive Administration	Limited shortages reported for this occupation.
542 Receptionists	Receptionist.	AUR20112 Certificate II in Automotive Administration	Limited shortages reported for this occupation.

AUTOMOTIVE ADMINISTRATIONS AND SALES SECTOR (CONTINUED)			
ANZSCO CODE AND OCCUPATION	**INDUSTRY SECTOR AND OCCUPATION TITLES**	**TRAINING PACKAGE QUALIFICATION**	**JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)**
621611 Service Station Attendant	Service Station Attendant/ Salesperson; Sales Assistant.	AUR21112 Certificate II in Automotive Sales	Limited shortages reported for this occupation.
621111 Sales Assistant (General)	Bicycle Salesperson.	AUR2031 2 Certificate II in Bicycle Mechanical Technology AUR21112 Certificate II in Automotive Sales	Mild shortages have been reported for bicycle salespersons.
621111 Sales Assistant (General)	Outdoor Power Equipment Salesperson.	AUR21112 Certificate II in Automotive Sales	Low levels of shortages reported for this occupation.
512111 Office Manager	Office/Sales Administration.	AUR30112 Certificate III in Automotive Administration	Limited shortages reported for this occupation.
591116 Warehouse Administration	Warehousing and Distribution Administration; Bicycle Administration; Marine Administration; Outdoor Power Equipment Administration;	AUR30112 Certificate III in Automotive Administration	No shortages reported for this occupation.
591116 Warehouse Administration	Motorsport Administration; Vehicle Servicing and Repair Administration.	AUR30112 Certificate III in Automotive Administration	Limited shortages reported for this occupation. Limited shortages reported for this occupation.
621312 Motor Vehicle Parts Interpreter	Parts Interpreter.	AUR31012 Certificate III in Automotive Sales	Parts Interpreters have been reported as major skill shortage nationally by industry stakeholders. Using data from the 2015 Automotive Environmental Scan Survey, ASA has estimated a combined shortage of parts interpreters across the parts wholesaling and retailing sectors of 926 persons

AUTOMOTIVE ADMINISTRATIONS AND SALES SECTOR (CONTINUED)			
ANZSCO CODE AND OCCUPATION	**INDUSTRY SECTOR AND OCCUPATION TITLES**	**TRAINING PACKAGE QUALIFICATION**	**JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)**
621311 Motor Vehicle Salesperson	Vehicle Salesperson; Aftermarket Salesperson; Aftermarket Senior Salesperson.	AUR31012 Certificate III in Automotive Sales	ASA has identified a national shortage of 618 vehicle salespersons according to stakeholder reports and results from the 2015 Automotive Environmental Scan Survey.
621311 Motor Vehicle Salesperson	Farm Machinery Salesperson; Motorcycle Salesperson; Outdoor Power Equipment Salesperson; Marine Salesperson.	AUR31012 Certificate III in Automotive Sales	Low levels of shortages reported for this occupation.
621311 Motor Vehicle Salesperson	Bicycle Salesperson.	AUR31012 Certificate III in Automotive Sales	Mild shortages have been reported for this occupation.
131112 Sales and Marketing Manager	Business/Sales Manager.	AUR40112 Certificate IV in Automotive Management AUR50112 Diploma of Automotive Management	Limited shortages reported for this occupation.
149212 Customer Service Manager	Customer Service Manager.	AUR40112 Certificate IV in Automotive Management AUR50112 Diploma of Automotive Management	Low levels of shortages reported for this occupation.
149212 Customer Service Manager	Workplace Manager; Parts Manager.	AUR40112 Certificate IV in Automotive Management	Low levels of shortages reported for this occupation.

AUTOMOTIVE ADMINISTRATIONS AND SALES SECTOR (CONTINUED)			
ANZSCO CODE AND OCCUPATION	INDUSTRY SECTOR AND OCCUPATION TITLES	TRAINING PACKAGE QUALIFICATION	JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)
	Dealer Principal; Automotive Directorship.	AUR50112 Diploma of Automotive Management	Low level shortages have been reported for this occupation.
131112 Sales and Marketing Manager	Operations Manager; Area Manager.	AUR50112 Diploma of Automotive Management	Limited shortages reported for this occupation.
131112 Sales and Marketing Manager	Marketing Manager; Purchasing Manager.	AUR50112 Diploma of Automotive Management	No shortages reported for this occupation.
149212 Customer Service Manager	Automotive Service/Repair Manager.	AUR50112 Diploma of Automotive Management	Limited shortages reported for this occupation.
149212 Customer Service Manager	Automotive Aftermarket Manager.	AUR50112 Diploma of Automotive Management	Low levels of shortages reported for this occupation.
131112 Sales and Marketing Manager	Automotive Retail Sales Manager.	AUR50112 Diploma of Automotive Management	Low levels of shortages reported for this occupation.
131112 Sales and Marketing Manager	Automotive Warehouse Manager.	AUR50112 Diploma of Automotive Management	No shortages reported for this occupation.

AUTOMOTIVE MANUFACTURING SECTOR			
ANZSCO CODE AND OCCUPATION	INDUSTRY SECTOR AND OCCUPATION TITLES	TRAINING PACKAGE QUALIFICATION	JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)
832211 Product Assembler	Product Assembler; Vehicle Body Assembler; Component Assembler.	AUM20113 Certificate II in Automotive Manufacturing Production - Passenger Motor Vehicle	Limited shortages reported for this occupation.
591116 Warehouse Administrator	Warehouse and Material Logistics.	AUM20113 Certificate II in Automotive Manufacturing Production - Passenger Motor Vehicle	No shortages reported for this occupation.

AUTOMOTIVE MANUFACTURING SECTOR (CONTINUED)			
ANZSCO CODE AND OCCUPATION	INDUSTRY SECTOR AND OCCUPATION TITLES	TRAINING PACKAGE QUALIFICATION	JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)
832211 Product Assembler	Automotive Manufacturing Production Worker.	AUM20113 Certificate II in Automotive Manufacturing Production - Passenger Motor Vehicle	No shortages reported for this occupation.
324211 Vehicle Body Builder	Automotive Body Builder.	AUR20213 Certificate II in Automotive Manufacturing Production - Bus Truck and Trailer	No shortages reported for this occupation.
832211 Product Assembler	Automotive Manufacturing Production Worker.	AUR20213 Certificate II in Automotive Manufacturing Production - Bus Truck and Trailer	No shortages reported for this occupation.
832211 Product Assembler	Component Assembler.	AUR20213 Certificate II in Automotive Manufacturing Production - Bus Truck and Trailer	No shortages reported for this occupation.
839311 Product Examiner	Automotive Manufacturing Technician.	AUM30113 Certificate III in Automotive Manufacturing Technical Operations - Passenger Motor Vehicle	No shortages reported for this occupation.
324211 Vehicle Body Builder	Vehicle Body Builder.	AUM30113 Certificate III in Automotive Manufacturing Technical Operations - Passenger Motor Vehicle	No shortages reported for this occupation.
324211 Vehicle Body Builder	Coach Builder Technician.	AUM30113 Certificate III in Automotive Manufacturing Technical Operations - Passenger Motor Vehicle	Low level shortages reported for this occupation.
832211 Product Assembler	Sub-Assembly Technician.	AUM30113 Certificate III in Automotive Manufacturing Technical Operations - Passenger Motor Vehicle	No shortages reported for this occupation.

AUTOMOTIVE MANUFACTURING SECTOR			
ANZSCO CODE AND OCCUPATION	INDUSTRY SECTOR AND OCCUPATION TITLES	TRAINING PACKAGE QUALIFICATION	JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)
839311 Product Examiner	Automotive Manufacturing Technician.	AUM30213 Certificate III in Automotive Manufacturing Technical Operations - Bus, Truck and Trailer	No shortages reported for this occupation.
324211 Vehicle Body Builder	Vehicle Body Builder.	AUM30213 Certificate III in Automotive Manufacturing Technical Operations - Bus, Truck and Trailer	Results from the 2015 Automotive Environmental Scan survey indicate a mild shortage of vehicle body builders/coach builders within bus, truck and trailer manufacturing.
324211 Vehicle Body Builder	Coach Builder Technician.	AUM30213 Certificate III in Automotive Manufacturing Technical Operations - Bus, Truck and Trailer	Low level shortages reported for this occupation.
832211 Product Assembler	Sub-Assembly Technician.	AUM30213 Certificate III in Automotive Manufacturing Technical Operations - Bus, Truck and Trailer	No shortages reported for this occupation.
832211 Product Assembler	Lead Technician (Bus Truck and Trailer; Lead Technician (Passenger Vehicle).	AUM40113 Certificate IV in Automotive Manufacturing	No shortages reported for this occupation.
832211 Product Assembler	Line Manager.	AUM50113 Diploma of Automotive Manufacturing	No shortages reported for this occupation.
133512 Production Manager (Manufacturing)	Automotive Production Manager; Automotive Production Supervisor.	AUM50113 Diploma of Automotive Manufacturing	No shortages reported for this occupation.

MOTORSPORT SECTOR			
ANZSCO CODE AND OCCUPATION	INDUSTRY SECTOR AND OCCUPATION TITLES	TRAINING PACKAGE QUALIFICATION	JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)
	Race Team General Hand.	AUR21012 Certificate II in Motorsport Technology	No shortages were reported by employers for this occupation.
	Motorsport Vehicle Technician; Number Three Mechanic.	AUR30912 Certificate III in Motorsport Technology	No shortages reported for this occupation.
	Motorsport Service/Pit Crew Member.	AUR30912 Certificate III in Motorsport Technology	No shortages were reported by employers for this occupation.
	Master Technician; Motorsport Pit Crew Coordinator.	AUR40312 Certificate IV in Motorsport Technology	No shortages were reported by employers for this occupation.
	Advanced Diagnostic Technician, Motorsport.	AUR50312 Diploma of Motorsport Technology	No shortages were reported by employers for this occupation.
	Motorsport Team Manager.	AUR50312 Diploma of Motorsport Technology	No shortages were reported by employers for this occupation.
	Motorsport Design Technician.	AUR50312 Diploma of Motorsport Technology	No shortages were reported by employers for this occupation.

VET IN SCHOOLS/ PRE-VOCATIONAL SECTOR			
ANZSCO CODE AND OCCUPATION	INDUSTRY SECTOR AND OCCUPATION TITLES	TRAINING PACKAGE QUALIFICATION	JUSTIFICATION/EVIDENCE (QUALITATIVE AND/OR QUANTITATIVE)
	Entry Level Training- All Sectors Excluding Manufacturing.	AUR10112 Certificate I in Automotive Vocational Preparation AUR20712 Certificate II in Automotive Vocational Preparation	These pre-vocational qualifications at the Certificate I and Certificate II level provide multiple pathways for students into the automotive industry.
	Entry Level Training- Manufacturing Sector	AUM10113 Certificate I in Automotive Manufacturing	

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Hi Style
Hickeys Pty Ltd
Highlands Pit Lane Pty Ltd
Hitachi Construction Machinery (Australia) Pty Ltd
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IAG
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Ierace Automotive
In Style Automotive
J B Scott Pty Ltd
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National Truck Spares Pty Ltd
Neils Mobile Repairs
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Northside Smash Repairs
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Sayers Smash Repairs
Sindaco Air Brake Company Pty Ltd
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Sorro's Outboard Services
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Southwest Diesel
Southwest Insitute of Technology
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SSHT Pty Ltd
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Westar Truck Centre
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Westrans Services WA Pty Ltd
Westruck Commercial Refinishing
Westside Honda
Whittaker Contracting
Wholesale Suspension
William Adams
Winfield Automotive
Winkleys Service Centre
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Woodford Service Centre
Woolgoolga Service Centre
Yendon Smash Repairs

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